

State of Alaska
Department of Revenue
STATE INVESTMENT REVIEW MEETING
February 17, 2023 – 10:00 a.m.

Via Computer or Mobile App Meeting ID: 243 462 757 899 Passcode: sEnEC7	Call In (Audio Only): Phone: 1-907-202-7104 Code: 977 595 274#
--	---

- I. Introduction**
Zachary Hanna, Chief Investment Officer
Adam Crum, Commissioner of Revenue

- II. Fidelity Tactical Bond**
Jeffrey Moore, Portfolio Manager
Michael Plage, Portfolio Manager
Beau Coash Institutional Portfolio Manager
Kristin Shofner, Senior Vice President, Business Development

- III. State Investments**
Zachary Hanna, Chief Investment Officer
 - A. Capital Market Update**
 - B. December 31, 2022, Performance**
 - C. Non-Routine Investments**
 - D. 2023 Capital Market Assumptions**
 - E. FY2024 Initial Asset Allocations**

- IV. IAC Comments**
Investment Advisory Council Members

- V. Future Agenda Items & Calendar Review**
Zachary Hanna, Chief Investment Officer
Alysia Jones, ARMB Liaison

- VI. Other Matters for Discussion**

- VII. Adjournment**

Tactical Bond

February 17, 2023

Presentation to:
State of Alaska Retirement Systems

Jeffrey Moore, CFA
Portfolio Manager

Michael Plage, CFA
Portfolio Manager

Beau Coash
Institutional Portfolio Manager

Kristin Shofner
*Senior Vice President,
Business Development*

For institutional use only.



Table of Contents

1. FIAM Overview
2. Fixed Income Capabilities
3. Tactical Bond
4. Market Environment
5. Appendix
 - A. Biographies
 - B. Important Information

See “Important Information” for a discussion of performance data, some of the principal risks related to any of the investment strategies referred to in this presentation, professional designations and how they are obtained, and other information related to this presentation.

2 For institutional use only.

202301-31251



FIAM Overview

For institutional use only.



What Distinguishes Fidelity Fixed Income?

Team Approach	Commitment to Research	Risk Management
<ul style="list-style-type: none"> • Stable and experienced team • Team has been managing portfolios since 1992 and asset allocation strategies since 2000 • A history of competitive results through a variety of market environments 	<ul style="list-style-type: none"> • Independent and proprietary • Spans the capital structure • Fundamental research complemented by macro insights <hr/> <ul style="list-style-type: none"> • Over 115 research professionals • Research analysts average 16 years of industry experience • Coordination with more than 175 equity research professionals <hr/> <p>Annually:</p> <ul style="list-style-type: none"> • 5,000 in-house meetings • 13,000 company contacts • 35,000 research notes 	<ul style="list-style-type: none"> • Focused on delivering competitive risk-adjusted returns that are consistent with client expectations • Integrated and empowered risk professionals • Multiple layers of oversight and risk infrastructure • Long-term commitment to risk infrastructure via technology (i.e., Risk Model)
<p style="text-align: center;">Strategically aligns Fidelity with its clients and shareholders</p>		

Past performance is no guarantee of future results.

Source: Fidelity Investments as of 12/31/22. Data is unaudited.



Fidelity Asset Management

Over 50 years of experience serving fixed income clients worldwide

History

Fidelity founded in 1946

Fidelity has been managing
Fixed Income since 1971

Global multi-asset class
solutions provider

People

**Global Investment
Professionals:** **874**

**Fixed Income
Professionals:** **256**

Division Management: 22
Portfolio Management: 44
Research: 118
Trading: 38
Other: 34

Assets

**Fidelity Assets Under
Management:** **\$3.7T**

Fixed Income Assets: **\$1,561.7B**

Bond Assets: \$526.7B
High Income Assets: \$101.2B
Money Market Assets: \$933.8B

Source: Fidelity Investments as of 12/31/22. Data is unaudited. Fidelity fixed income assets include investment grade and high income products, bond sub-portfolios of multi-asset class strategies, and money market cash management vehicles. Research professionals include both analysts and associates.

5 For institutional use only.

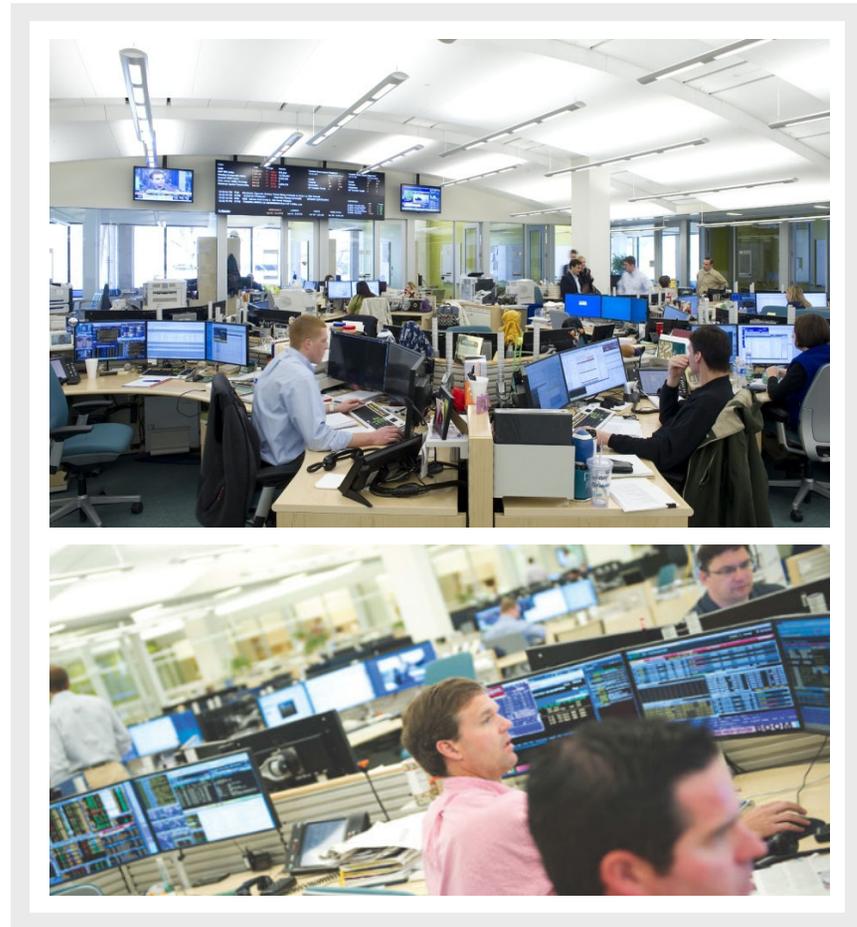
202301-31251



Team Based Collaboration

Ease of access to investment professionals leads to strong dialogue

- 145+ fixed income investment professionals
- Deliberate trading floor design encourages continuous in-person communication
- Specialized quantitative analysts working virtually and in office with each portfolio management team
- Compliance, legal and operations teams working closely virtually and in office to investment teams



As of 12/31/22.

Fixed Income Capabilities

For institutional use only.



Depth and Breadth of Fidelity Research

Dynamic multi-sector approach: utilizes firm-wide research capabilities

FOCUSED RESEARCH EXPERTISE ACROSS OUR INVESTMENT PLATFORM SEEKS TO DELIVER INCREMENTAL ALPHA



*Includes research associates and sector specialists

¹ Includes equity and fixed income research analysts

As of 12/31/22.

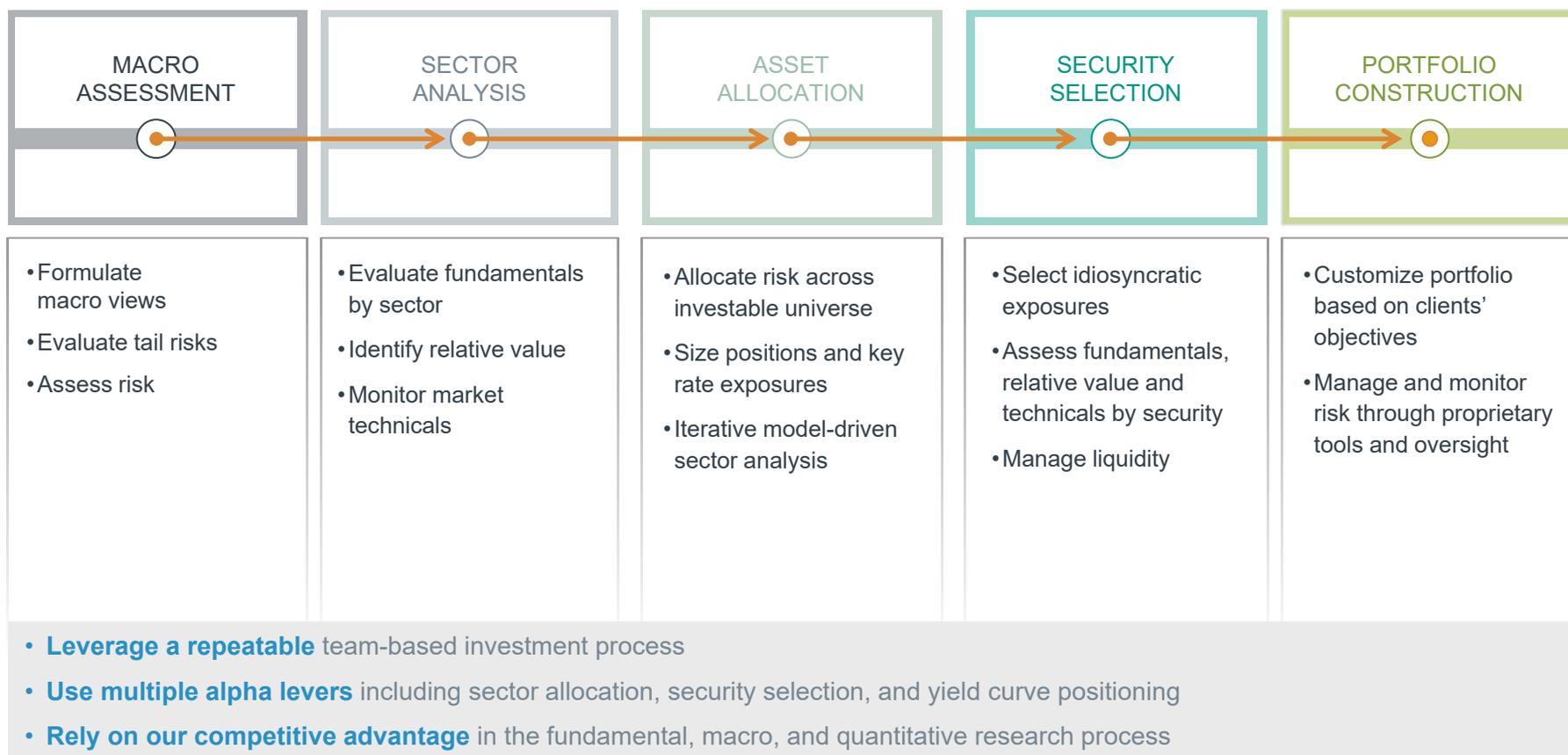
8 For institutional use only.

202301-31251



Investment Process

Disciplined process helps uncover global risk-adjusted return opportunities



For illustrative purposes only.

9 For institutional use only.

202301-31251



Tactical Bond

For institutional use only.



State of Alaska Performance Review

Performance as of December 31, 2022

	CUMULATIVE	ANNUALIZED				TNA (\$M)
	3-Month	1-Year	3-Year	5-Year	Since Inception (10/7/14)	
State of Alaska Retirement Systems Tactical Bond	2.80	(10.58)	(0.17)	2.37	3.30	\$910.2M
BBg US Agg Bond	1.87	(13.01)	(2.71)	0.02	0.94	
<i>Relative Return</i>	<i>0.93</i>	<i>2.43</i>	<i>2.54</i>	<i>2.35</i>	<i>2.36</i>	

	CUMULATIVE	CUMULATIVE				TNA (\$M)
	3-Month	1-Year	3-Year	5-Year	Since Inception (2/14/22)	
State of Alaska Retirement Systems Tactical Bond LP	2.79	-	-	-	(8.13)	\$183.9
Bloomberg US Agg Bond Index	1.87	-	-	-	(9.42)	
<i>Relative Return</i>	<i>0.92</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>1.29</i>	

Client data shown.

Past performance is no guarantee of future results.

All figures shown are in USD.

Any gross performance shown is gross of any fees and expenses, including advisory fees, which, when deducted, will reduce returns. If net performance is shown, it is less the client advisory fee charged employing this strategy; other fees and expenses will reduce returns. Past performance is no guarantee of future results.

11 For institutional use only.

202301-31251



State of Alaska Performance Review

Performance attribution summary as of December 31, 2022

	3-Month	1-Year
State of Alaska Tactical Bond (Gross)	2.80%	(10.58%)
Bloomberg U.S. Aggregate Index	1.87%	(13.01%)
<i>Active Return (Gross)</i>	0.93%	2.43%

CONTRIBUTION TO TACTICAL BOND TOTAL RETURN (Basis Points)		
Sector	YTD	1-Year
Treasuries	(19)	(428)
TIPS	-	-
Government Related	-	(2)
Inv. Grade Corp	58	(140)
<i>Financials</i>	21	(39)
<i>Industrials</i>	32	(97)
<i>Utilities</i>	5	(4)
Securitized	36	(10)
<i>MBS/RMBS</i>	-	-
<i>CMBS</i>	-	(2)
<i>ABS</i>	36	(8)
High Yield	67	(169)
Emerging Market Debt	67	(55)
Leveraged Loans	58	(1)
Global Credit ex US	133	(233)
Cash/Other	(120)	(20)
Total Contribution to Return	280	(1,058)

Performance shown is gross of any fees and expenses, including advisory fees, which when deducted will reduce returns.

Past performance is no guarantee of future results. Client data is shown.

12 For institutional use only.

202301-31251



State of Alaska Tactical Bond Portfolio Positioning

As of December 31, 2022

Characteristics	FIAM Tactical Bond	Bloomberg U.S. Aggregate Index	Difference
YTW%	7.31%	4.69%	2.62%
Duration (yrs)	5.41	6.14	(0.73)
Sector Allocation (%)			
U.S. Treasuries	19.70	40.56	(20.86)
TIPS	0.00	0.00	0.00
Gov't Related	0.99	5.13	(4.15)
Corporate	19.13	24.57	(5.44)
Investment Grade	11.90	24.57	(12.68)
Financials	5.73	8.49	(2.76)
Industrials	5.97	14.09	(8.12)
Utilities	0.19	1.99	(1.80)
High Yield	7.24	0.00	7.24
Securitized	11.90	29.34	(17.45)
Agency MBS	0.00	27.05	(27.05)
Non-Agency MBS	0.00	0.00	0.00
CMBS	0.98	1.84	(0.86)
Consumer ABS	0.71	0.45	0.26
CLO's	10.20	0.00	10.20
Emerging Market Debt	6.53	0.00	6.53
Leveraged Loans	19.45	0.00	19.45
Global Credit	17.80	0.00	17.80
Cash/Other	4.51	0.39	4.13
Total	100.00%	100.00%	

Investment Grade Corporate Allocation (%)	FIAM Tactical Bond	Bloomberg U.S. Aggregate Index	Difference
Finance Companies	0.61	0.30	0.31
Energy	1.86	1.66	0.20
Natural Gas	0.00	0.13	(0.13)
Other	0.01	0.17	(0.17)
REITS	0.39	0.67	(0.28)
Brokerage	0.00	0.33	(0.33)
Transportation	0.19	0.56	(0.37)
Capital Goods	0.89	1.31	(0.42)
Insurance	0.49	1.12	(0.63)
Basic Industry	0.00	0.65	(0.65)
Consumer Cyclical	0.81	1.68	(0.87)
Communications	0.83	2.10	(1.27)
Electric	0.19	1.81	(1.62)
Banking	4.24	6.06	(1.82)
Consumer Non-Cyclical	1.33	3.61	(2.28)
Technology	0.07	2.40	(2.33)
Total	11.90%	24.57%	
Ratings Allocation (%)			
AAA	27.02	74.13	(47.12)
AA	10.47	4.55	5.92
A	3.13	10.66	(7.53)
BBB	27.96	10.67	17.29
BB	18.14	0.00	18.14
B	10.14	0.00	10.14
CCC	1.08	0.00	1.08
NR/Other	2.08	0.00	2.08
Total	100.00%	100.00%	

Client account information is shown.

Cash/Other may include cash and derivatives.

Ratings are based on highest of Moody's, S&P, and Fitch ratings.

13 For institutional use only.

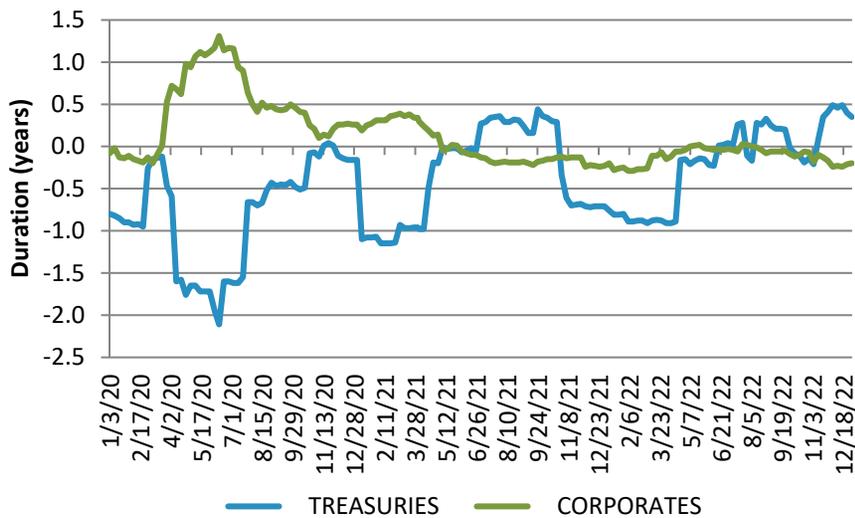
202301-31251



State of Alaska Asset Allocation Tactical Bond

As of December 31, 2022

Active Duration: Since March 2020



Active Corp. Sector Duration By Maturity



Client account information is shown.
 Source: Fidelity Investments, Bloomberg.



Market Environment

For institutional use only.



Methodology Scenario Analysis

Model Objective: to provide an indication of how the portfolio's performance (as currently positioned) would be impacted over the next year, in the event of a substantial shock to an external market factor (ie, S&P 500 declines 20%; Treasury 10 Year rate increases 100 basis points, etc). The model is a stress test on the existing exposures of the portfolio given current market conditions and the stated hypothetical outcomes. The model estimates an instantaneous shock price return and projects total returns over the subsequent year assuming the current yield of the portfolio.

Investment Universe: Current portfolio and benchmark holdings are used. Benchmark is the primary benchmark for the strategy, Bloomberg US Aggregate Index.

Was leverage used? No

Why were the specific events/time periods chosen?

- The historical time periods represent historical market stress events which are used to get risk factor changes to provide an indication of how the current portfolio may perform if the historical event were to happen with today's exposures.
- The hypothetical scenarios use the most recent factor simulations which are conditioned on the level of volatility present in the market.

Trading/Taxes/Coupon income assumptions:

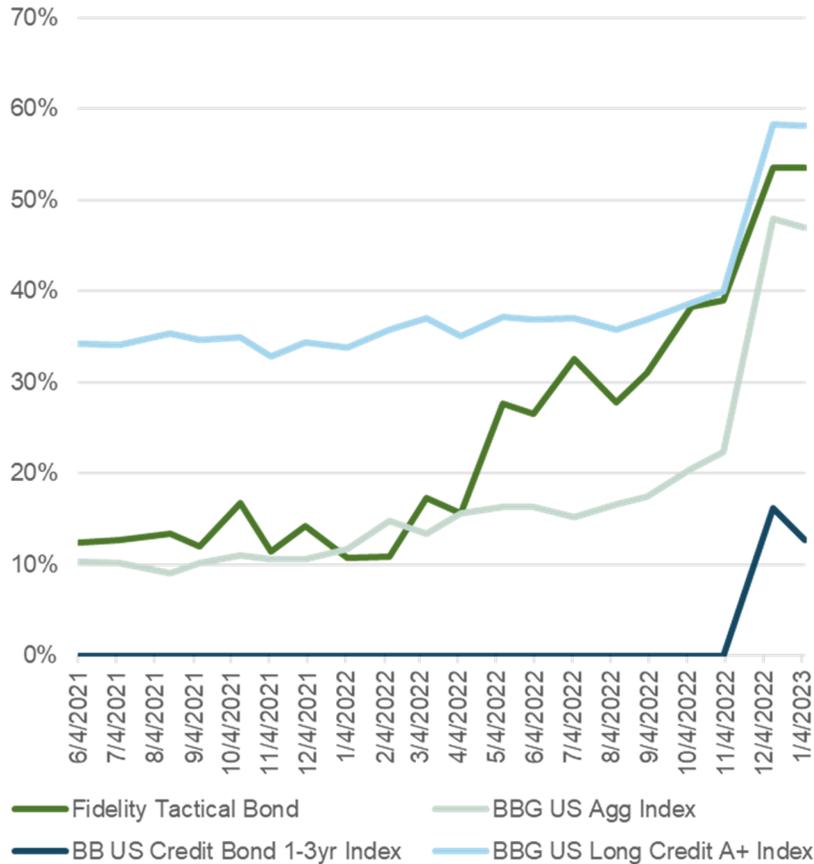
- Trading: The simulations assume a 'static' portfolio, with no hypothetical trades taking place.
- Tax treatment of gains: no trades occur, so all gains treated as unrealized.
- Coupon income: The strategy is assumed to have an income return equivalent to the current annualized yield of the portfolio. This yield is added to the instantaneous price shock of the portfolio to approximate total return.

Other information

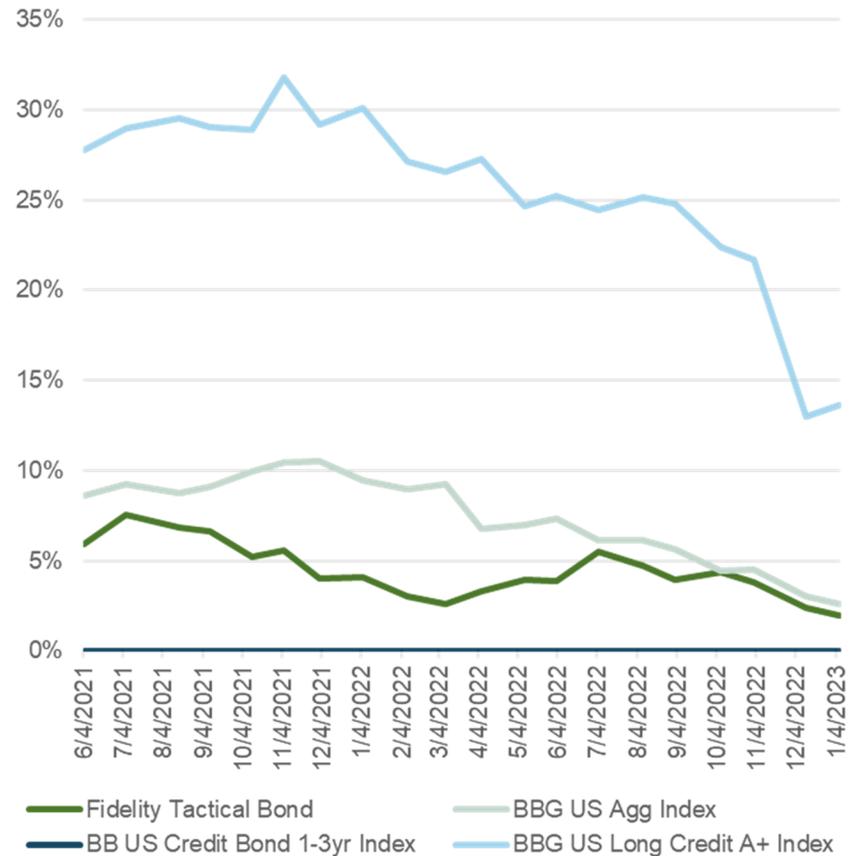
- The model of hypothetical scenarios is an instantaneous shock based on the risk factor simulations generated from the risk model and is conditioned on the level of volatility seen in the market as represented by the VIX index. The model methodology will remain the same in future simulations, but more data will be available for the risk factors (longer time series), and the level of volatility in the market (VIX index) will change.
- The risk factors are based on real time series of data stretching back to January 2000. They are modeled by marginal skew-t distributions and related to each other through a skewed-t copular distribution. We simulate 20,000 draws from this copular, and then condition on the VIX to get 5000 conditioned simulations to the market. It is from this set that we then condition on hypothetically to get the risk factor changes in the hypothetical scenarios. The risk factor changes in the historical scenarios are historical factor changes from the specified periods at monthly cadence.

Simulated Probability of Annualized Quarterly Returns

Probability of >10% Annualized Projection



Probability of <-10% Annualized Projection



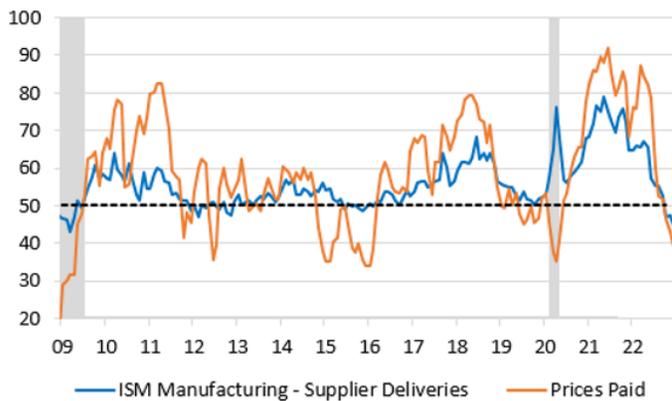
The risk model simulations are consistent with the implied volatility regime, on the dates shown and the portfolio/ and benchmark holdings along with and a dependency structure across the risk factors which has been estimated from historical relationships and conditioned on the level of volatility present in the market at that time. The impact on the portfolio and benchmark uses the sample space of 5000 simulated factor changes and coincident exposures to project contributions to price return for each factor.

Hypothetical data projections has inherent limitations due to the prospective application of a model designed using predicted and historical data trends and may not reflect the effect that any future material market or economic factors could have on performance. Projected returns are not reflective of actual results and, given that market conditions may vary, an investor should not expect to achieve such results. Projected returns are shown gross of fees and expenses, including advisory fees, which would reduce returns.

Thus Hypothetical Performance is speculative and of extremely limited use to any investor and should not be relied upon in any way. Hypothetical performance of the model is no guarantee of future results.

Entering The Easy Disinflation Phase – Goods And Shelter Can Be Powerful Forces. But Wages Are The Source Of Upside Risk

Goods inflation is slowing sharply, bottlenecks are easing



OER is likely to follow private rental measures



Services inflation is tied to wage growth



Source: Top left: ISM, Haver, Top right: Zillow, BLS, Haver, Bottom: Atlanta Fed, BLS, Haver.

As of 1/10/23.

A Variety Of Scenarios Suggest Core Inflation Will Moderate In 2023. Labor Markets Will Determine Where We Ultimately Land

Shelter decelerates to 0.4% based on relationship with Zillow

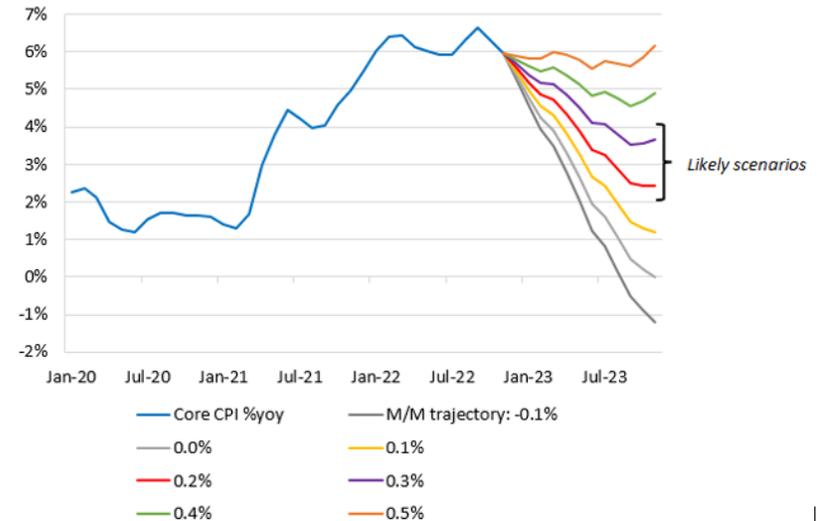
	Services ex-shelter		
	@0.2%	@0.4%	@0.6%
Goods stay flat	0.2%	0.3%	0.4%
Goods deflate (-0.5%)	0.1%	0.2%	0.2%
Goods deflate massively (-1%)	0.0%	0.0%	0.1%

Shelter inflation slows like the GFC to 0.1%

	Services ex-shelter		
	@0.2%	@0.4%	@0.6%
Goods stay flat	0.1%	0.2%	0.2%
Goods deflate (-0.5%)	0.0%	0.0%	0.1%
Goods deflate massively (-1%)	-0.2%	-0.1%	0.0%

*circling most likely outcomes

Core inflation assuming different monthly trajectories



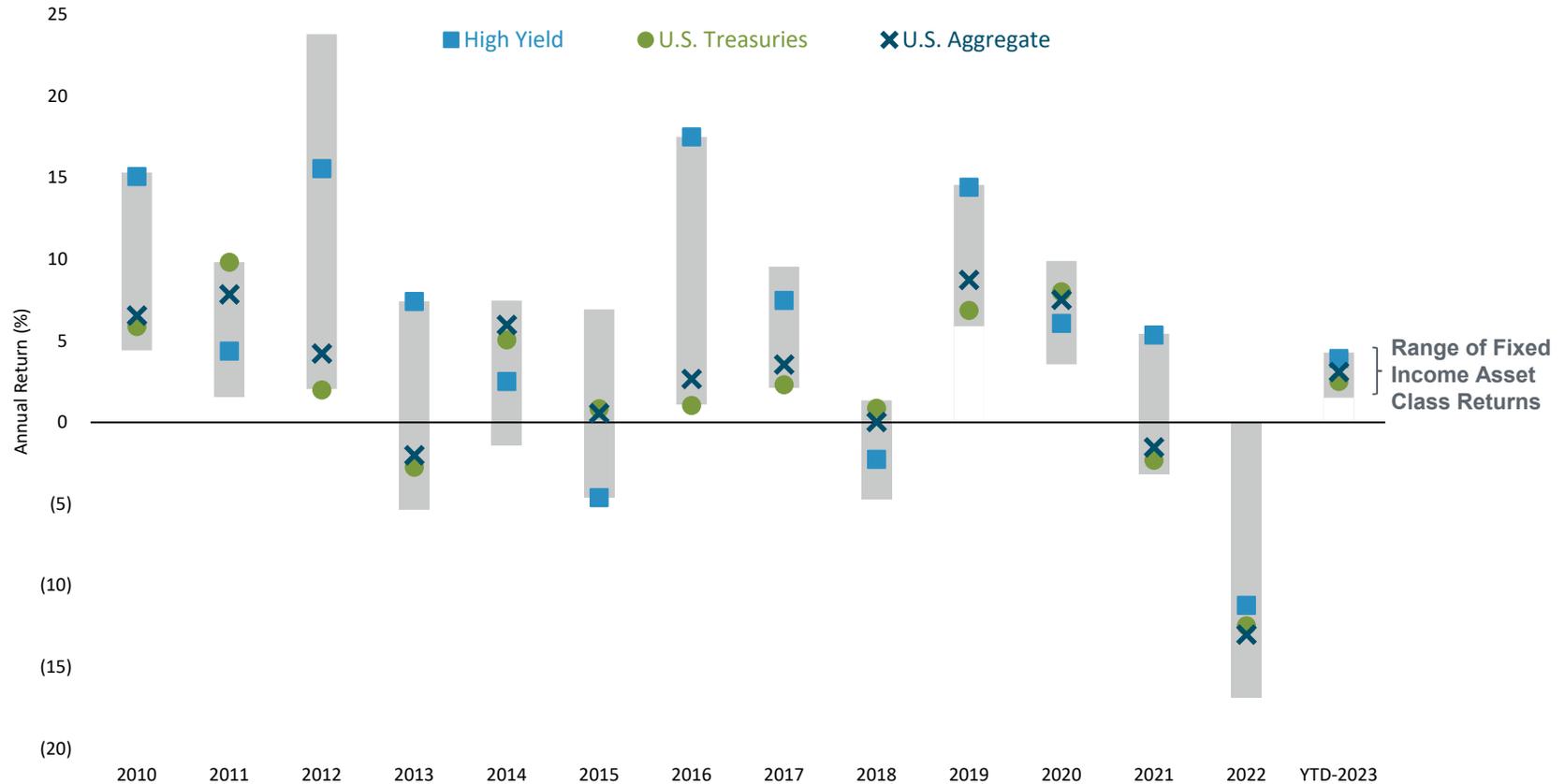
Source: BLS, Haver and Fidelity Investment as of 1/10/23.

19 For institutional use only.

202301-31251



Bonds Offer Diverse Opportunity Set



Source: Bloomberg and Fidelity Investments, as of 1/31/23.

Range of bond returns are represented by the Bloomberg U.S. Aggregate Bond Index, Bloomberg U.S. Treasury Index, Bloomberg U.S. Agency Index, Bloomberg Emerging Markets USD Aggregate-Investment Grade Index, Bloomberg Emerging Markets USD Aggregate-High Yield Index, Bloomberg U.S. Corporate Investment Grade Index, Bloomberg U.S. Mortgage Backed Securities Index, S&P/LSTA Leveraged Performing Loan Index, and ICE BofA U.S. High Yield Constrained Index.

Calendar year performance from 2010 to 2021.

Past performance is no guarantee of future results. It is not possible to invest directly in an index. All market indices are unmanaged. Not intended to represent the performance of any Fidelity portfolio.

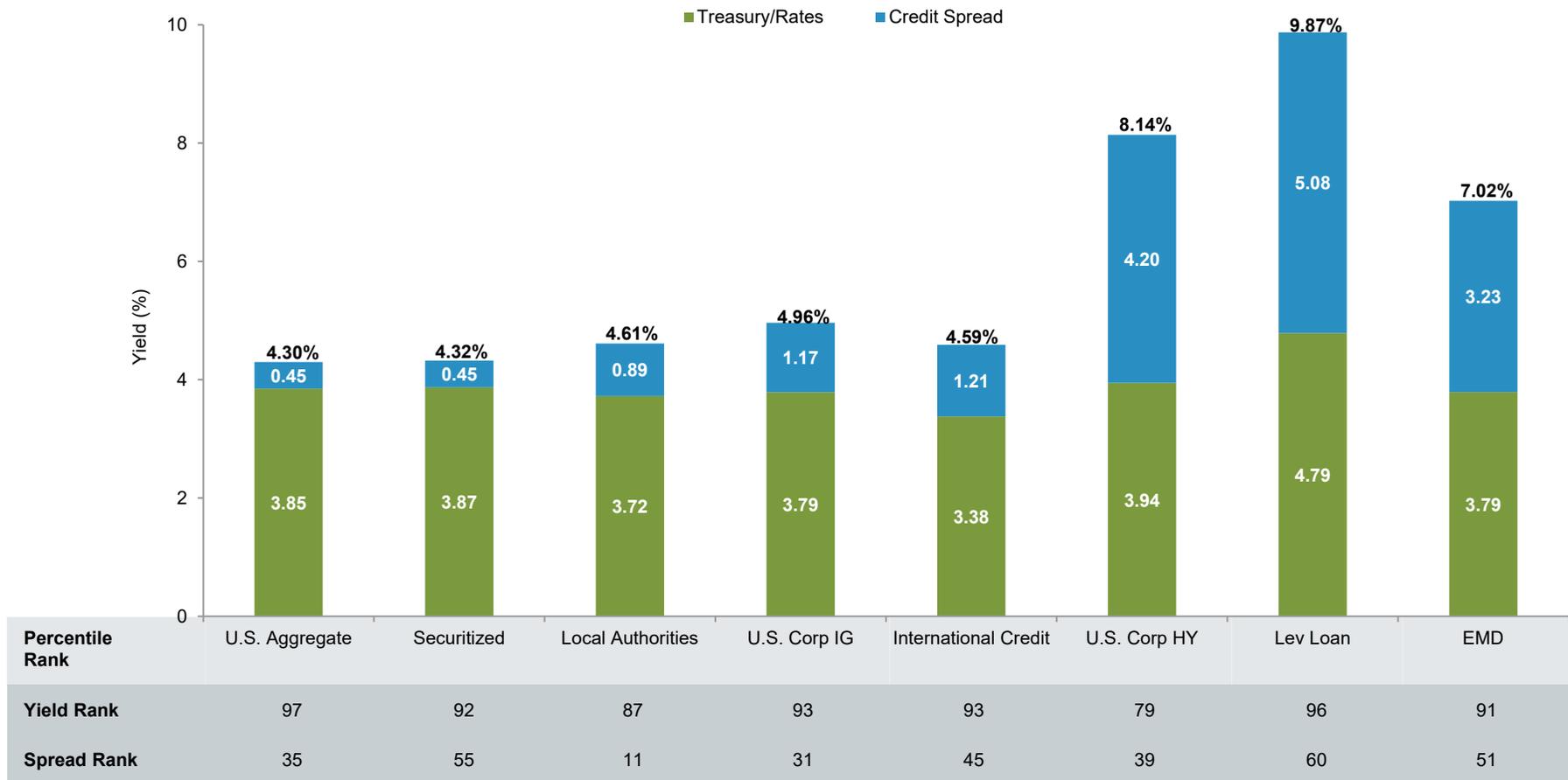
20 For institutional use only.

202301-31251



Fixed Income Yields and Spreads

Percentiles and OAS



Percentile ranks based on month-end data from January 2009 – January 2023

Source: Bloomberg and S&P, as of 1/31/23.

Note: Leveraged Loan is based on YTM (yield to maturity) and Spread to Maturity. The green portion of leveraged loan represents London Interbank Offered Rate (LIBOR). All others use YTW (yield-to-worst) and OAS (option-adjusted-spread). Yields and spreads are represented by the Bloomberg U.S. Aggregate Bond Index, Bloomberg U.S. Securitized Index, Bloomberg U.S. Aggregate Local Authorities Index, Bloomberg Corporate Investment Grade Index, Bloomberg Global Credit Index, Bloomberg U.S. Corporate High Yield Index, S&P/LSTA Leveraged Performing Loan Index, and Bloomberg Emerging Markets USD Aggregate Index. It is not possible to invest directly in an index. All market indices are unmanaged.

Not intended to represent the performance of any Fidelity portfolio.

21 For institutional use only.

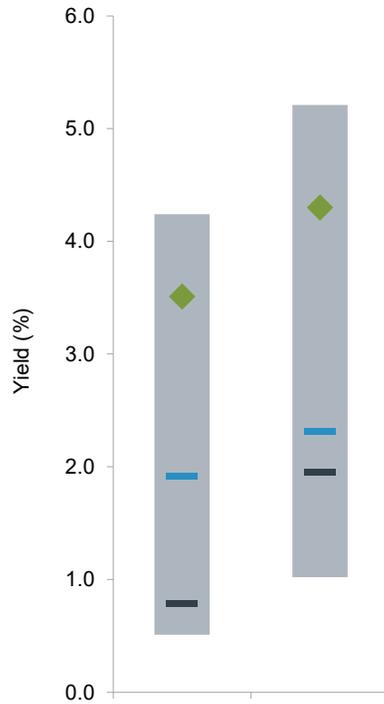
202301-31251



Fixed Income Yields and Spreads

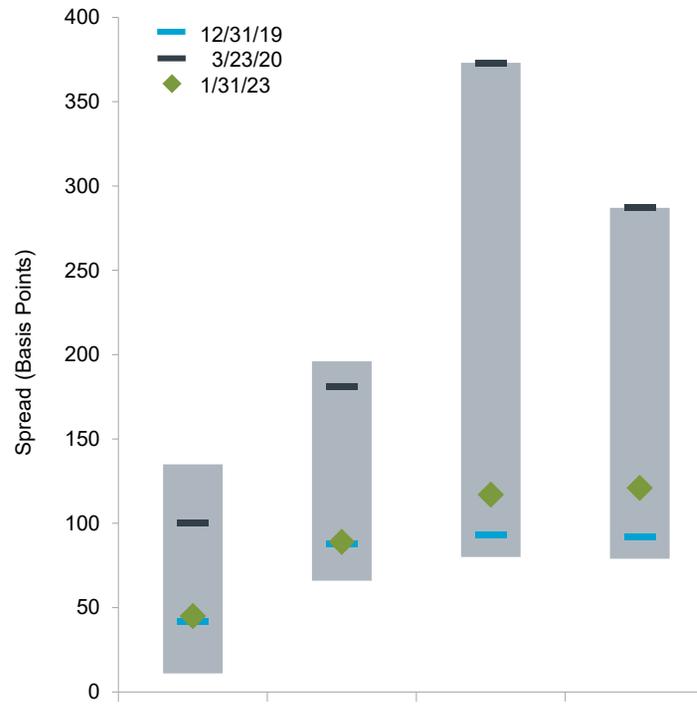
Rate and spread ranges since January 2010

10-YR TREASURY / U.S. AGG



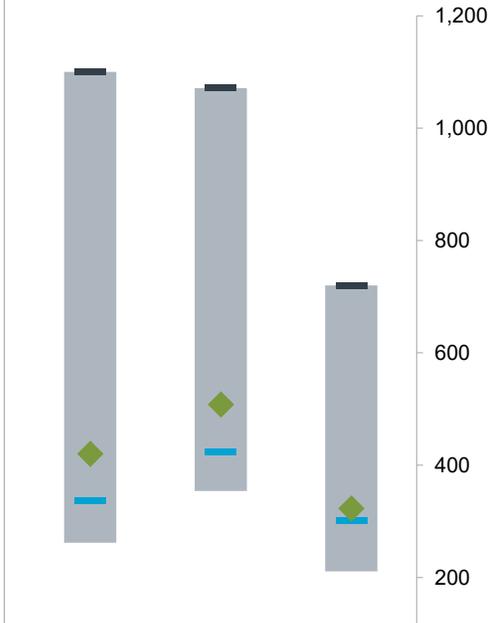
Asset Class	10-Year Treasury	U.S. Aggregate
Percentile Yield Rank	95	97

INVESTMENT GRADE SECTORS



Asset Class	Securitized	Local Authorities	U.S. Corporate IG	International Credit
Percentile Spread Rank	59	12	33	49

HIGH YIELD SECTORS



Asset Class	U.S. Corporate High Yield	Leveraged Loans	Emerging Market Debt
Percentile Spread Rank	42	64	54

Notes: Data is for the period January 2010 – January 2023. Spread data is based on option-adjusted spread except for Leveraged Loans which is based on spread to maturity.

Sources: Bloomberg and S&P as of 1/31/23. Yields and spreads are represented by the Bloomberg U.S. Aggregate Bond Index, Bloomberg U.S. Securitized Index, Bloomberg U.S. Aggregate Local Authorities Index, Bloomberg Corporate Investment Grade Index, Bloomberg Global Credit Index, Bloomberg U.S. Corporate High Yield Index, S&P/LSTA Leveraged Performing Loan Index, and Bloomberg Emerging Markets USD Aggregate Index. It is not possible to invest directly in an index. All market indices are unmanaged. Not intended to represent the performance of any Fidelity portfolio.



Financial Conditions

Financial Conditions Index



Financial Conditions Index



Source: Bloomberg, Goldman Sachs as of 12/31/22.

23 For institutional use only.

202301-31251



U.S. Treasury Curve Steepness



Source: Bloomberg, as of 12/31/22. Past performance is no guarantee of future results.



Appendix

For institutional use only.



Fixed Income Assets Under Management

Active Diversified	Institutional \$19.5B	Retail \$121.4B	Total \$140.9B
Core Constrained	4.1	0.0	4.1
Core	15.4	121.4	136.8
Core Plus ¹	7.6	51.6	59.1
Tactical Bond ¹	7.7	2.4	10.1
Limited Term	Institutional \$56.9B	Retail \$23.4B	Total \$80.3B
Low Duration Solutions	5.9	10.8	16.7
Short/Stable Value	47.8	5.5	53.3
Short-Intermediate	0.8	3.0	3.8
Intermediate	2.4	4.2	6.6
LDI	Institutional \$13.4B	Retail \$0.0B	Total \$35.3B ²
Long Corporate	9.6	0.0	9.6
Long Gov't/Credit	3.8	0.0	3.8
Gov't/Mortgage	Institutional \$3.1B	Retail \$38.4B	Total \$41.6B
Government	1.0	7.8	8.8
Mortgage	2.1	30.6	32.7
Municipal	Institutional \$5.7B	Retail \$38.0B	Total \$43.7B
Municipal	5.7	38.0	43.7

Global Bond	Institutional \$5.0B	Retail \$21.7B	Total \$26.8B
Global	2.2	12.4	14.6
Canada	2.8	9.3	12.1
Credit/Global Credit	Institutional \$8.3B	Retail \$6.4B	Total \$14.7B
Credit	6.9	4.8	11.7
Global Credit	1.4	1.6	3.0
Passive	Institutional \$19.7B	Retail \$148.3B	Total \$165.4B
US Multisector Bond	8.7	79.1	87.7
US Treasury	8.2	67.7	75.9
Municipal Bond	0.0	0.2	0.2
Canada	0.3	1.3	1.6
High Income	Institutional \$19.4B	Retail \$81.8B	Total \$101.2B
High Yield	3.4	41.8	45.2
Leveraged Loan	10.2	18.4	28.6
Equity	0.9	6.1	7.0
Emerging Markets	2.6	9.4	12.0
HY CMBS	2.3	6.1	8.4
Total Fixed Income AUM	Institutional (\$ Billions)	Retail (\$ Billions)	Total (\$ Billions)
Bonds	\$129.1	\$397.6	\$526.7
High Income	\$19.4	\$81.8	\$101.2
Money Market	\$290.2	\$643.6	\$933.8
Total	\$438.7	\$1,123.0	\$1,561.7

Data as of 12/31/22. Includes sub-portfolios. Totals may vary due to rounding.

¹ Assets are not included in total figures because they have been incorporated into the figures of the underlying investment categories.

² Total also includes Canadian LDI, Intermediate Duration LDI, and Long Term Treasury Bond Index LDI assets.

Fidelity Fixed Income Assets under management include accounts managed by FIAM and its affiliates, not all of which may be part of the FIAM firm for GIPS purposes.

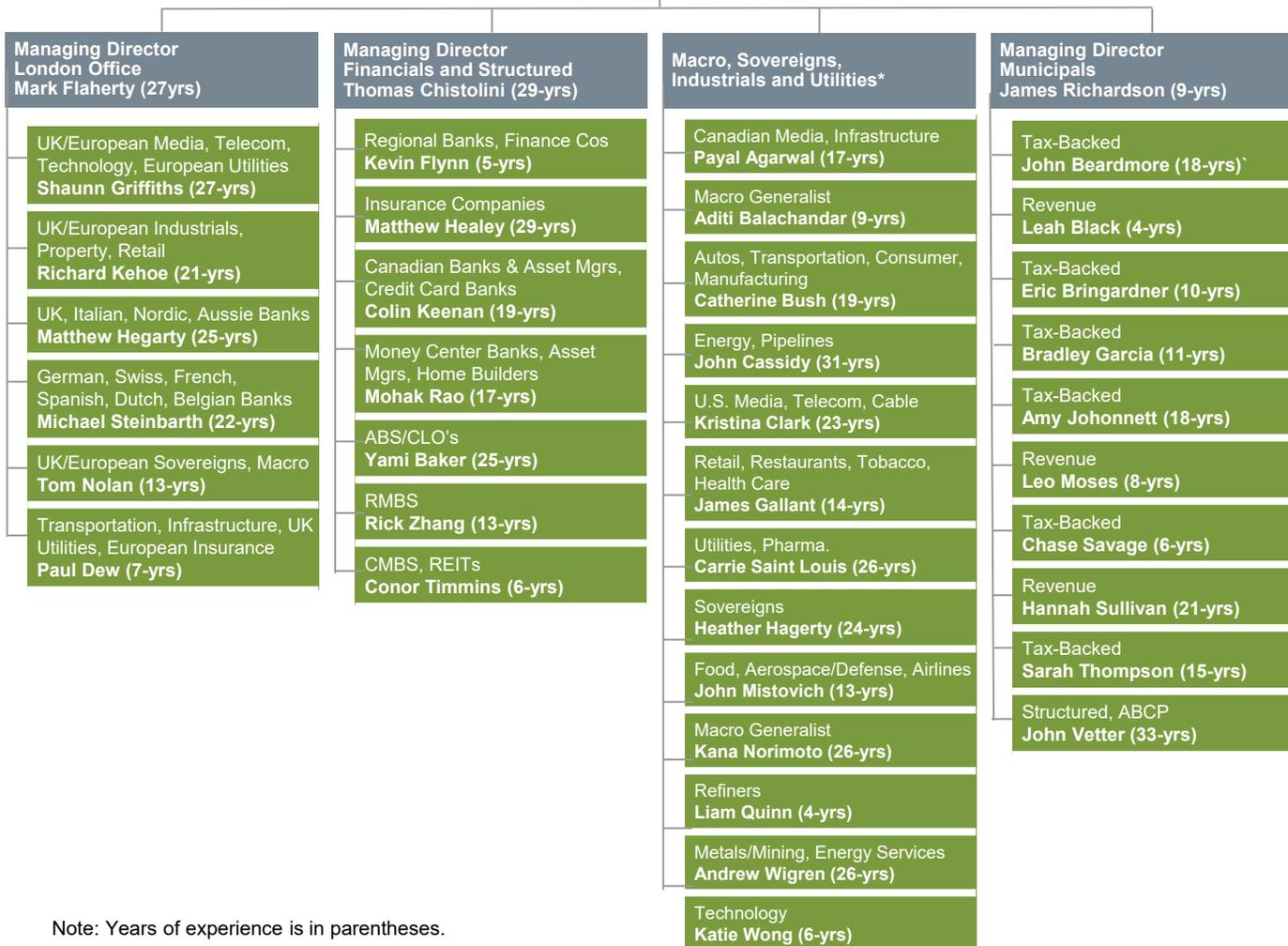
26 For institutional use only.

202301-31251



Emphasis on Strong Fundamental Research

**Head of Fixed Income Research
Christopher Bartel (26-yrs)**



- Broad-based research approach:
 - Macro/Sovereign
 - Finance
 - Industrial
 - Municipal
- Experienced team:
 - Many with 15–25+ years
 - Career analysts
 - Heavily influence process
- Deep financial coverage:
 - MNC, Regional, Non-U.S.
 - Macro benefit
- Macro/Muni broadens universe:
 - Expand beyond corporates
 - Requires deep analysis
 - Critical in long duration
- Leverage equity platform:
 - Attend company visits
 - Evaluate equity/debt perspectives

Note: Years of experience is in parentheses.

Includes managing directors and analysts.

* Christopher Bartel, in addition to being Head of Fixed Income Research, also manages the macro, sovereigns, industrials and utilities teams.

Source: FMR LLC., as of January 2023.

27 For institutional use only.

202301-31251



Biographies

Jeffrey Moore, CFA

Portfolio Manager

Jeffrey Moore is a portfolio manager in the Fixed Income division at Fidelity Investments. Fidelity Investments is a leading provider of investment management, retirement planning, portfolio guidance, brokerage, benefits outsourcing, and other financial products and services to institutions, financial intermediaries, and individuals.

In this role, Mr. Moore co-manages the Fidelity and Fidelity Advisor Investment Grade Bond Funds, Fidelity and Fidelity Advisor Tactical Bond Funds, Fidelity and Fidelity Advisor Total Bond Funds, and Fidelity Investment Grade Bond ETF, as well as various institutional portfolios for U.S. and non- U.S. investors. Additionally, he is a presenting member of Fidelity's Asset Allocation Committee.

Prior to assuming his current position, Mr. Moore was a fixed income analyst assigned to several sectors, including sovereign debt, energy, real estate investment trusts (REITs), banks, and Canada.

Before joining Fidelity in 1995, Mr. Moore worked at Dominion Bond Rating Service in Toronto and in Canada's Department of Finance. Mr. Moore was selected for the Accelerated Economist Training Program, serving on the Treasury Board and in the Privy Council Office. He has been in the financial industry since 1990.

Mr. Moore earned his bachelor of arts degree, with honors, in economics from the University of Western Ontario and his master's degree in economics from the University of Waterloo. He is also a CFA® charterholder.

Mr. Moore has authored a number of Thought Leadership papers, most recently "Active Multi-Sector Fixed Income Investing in an Uncertain Yield Environment" in 2013, "Stretching for Yield in the Fixed Income Market" in 2012, and "What Does Risk Free Mean Now?" in 2012. In Canada, he authored the paper "The Art and Science of Fixed Income" in 2009 and co-authored the paper "The Social Cost of Labor Taxes" for the Canadian Tax Journal in 1990. Additionally, Mr. Moore and team received Morningstar's 2016 U.S. Fixed-Income Manager of the Year Award for Fidelity Total Bond Fund.

Biographies

Michael Plage, CFA

Portfolio Manager

Michael Plage is a portfolio manager in the Fixed Income division at Fidelity Investments. Fidelity Investments is a leading provider of investment management, retirement planning, portfolio guidance, brokerage, benefits outsourcing, and other financial products and services to institutions, financial intermediaries, and individuals.

In this role, Mr. Plage co-manages the Fidelity and Fidelity Advisor Investment Grade Bond Funds, Fidelity and Fidelity Advisor Sustainable Core Plus Bond Funds, Fidelity and Fidelity Advisor Tactical Bond Funds, Fidelity Investment Grade Bond ETF, Fidelity Sustainable Core Plus Bond ETF, and Fidelity Total Bond ETF, as well as various institutional portfolios for U.S. and non- U.S. investors.

Prior to assuming his current responsibilities, Mr. Plage managed Fidelity Corporate Bond ETF, Fidelity and Advisor Corporate Bond and Short Duration High Income Funds, and Fidelity Puritan Fund, as well as institutional and retail fixed income portfolios within credit strategies, including high yield. Previously, he worked as a fixed income trader from 2005 to 2009.

Before joining Fidelity in 2005, he was a trader at Travelers Insurance (Citigroup) from 1997 to 2005. He has been in the financial industry since 1997.

Mr. Plage earned his bachelor of science degree in management from the University of South Carolina and his master of business administration degree in finance from the University of Connecticut. He is also a CFA® charterholder.

Beau Coash

Institutional Portfolio Manager

Beau Coash is an institutional portfolio manager for fixed income strategies at Fidelity Investments. Fidelity Investments is a leading provider of investment management, retirement planning, portfolio guidance, brokerage, benefits outsourcing, and other financial products and services to institutions, financial intermediaries, and individuals. The institutional portfolio management team is a group within Fidelity's Asset Management Solutions division, an integrated investment, distribution, and client service organization dedicated to meeting the unique needs of the institutional marketplace.

In this role, Mr. Coash is an active part of the portfolio management team and represents the team's capabilities, thought processes, and views to clients and consultants. He is also the fixed income relationship partner for the Asset Allocation, Strategic Advisers, and Global Asset Allocation divisions.

Prior to joining Fidelity as global head of syndicate and primary trading in Fidelity's Equity Trading division in 2005, Mr. Coash served as senior vice president in corporate bond sales at Lehman Brothers. Previously, he held leadership positions in development and national sales in start-up companies.

Mr. Coash was also a professional football player for the New England Patriots and Boston Breakers. He has been in the financial industry since 1993.

Mr. Coash earned his bachelor of arts degree in history from Middlebury College and his master of business administration degree in entrepreneurship studies from Harvard Business School.

Biographies

Kristin Shofner

Senior Vice President, Business Development

Kristin Shofner is senior vice president of business development within the Asset Management Solutions division at Fidelity Investments. Fidelity Investments is a leading provider of investment management, retirement planning, portfolio guidance, brokerage, benefits outsourcing, and other financial products and services to institutions, financial intermediaries, and individuals. The Fidelity Asset Management Solutions division is an integrated investment, distribution, and client service organization dedicated to meeting the unique needs of the institutional marketplace.

In this role, Ms. Shofner leads the development of relationships with public pension plans.

Prior to joining Fidelity in 2013, Ms. Shofner served as director of institutional sales and marketing at Lord, Abnett & Co. LLC. Previously, she served as manager of institutional sales and client services and as a manager research associate at Asset Strategy Consulting, later acquired by InvestorForce. She has been in the financial industry since 1998.

Ms. Shofner earned her bachelor of arts degree in history and sociology from the University of California at Santa Barbara where she ran Division I Cross Country and Track & Field. She was also a member of our United States Ekiden Relay Team in China and ran in the US Olympic Trials Women's Steeplechase in Atlanta.

Melissa Moesman

Vice President, Account Executive

Melissa Moesman is a vice president account executive within the Asset Management Solutions division at Fidelity Investments. Fidelity Investments is a leading provider of investment management, retirement planning, portfolio guidance, brokerage, benefits outsourcing, and other financial products and services to institutions, financial intermediaries, and individuals. The Fidelity Asset Management Solutions division is an integrated investment, distribution, and client service organization dedicated to meeting the unique needs of the institutional marketplace.

In this role, Ms. Moesman is responsible for account management for both public and private institutional clients.

Prior to joining Fidelity in 2006, Ms. Moesman served as a relationship manager at Linedata Services. Previously, she held various client-related roles at Investors Bank & Trust Company, where she managed a corporate actions accounting group and the endowment, foundation, and institutional product line. Ms. Moesman also managed the donor relations program at Wellesley College. She has been in the financial industry since 2000.

Ms. Moesman earned her bachelor of arts degree from Wellesley College and her master of business administration degree from Babson College. She also holds the Financial Industry Regulatory Authority (FINRA) Series 7 and 63 licenses.

Important Information

Please read this information carefully. Speak with your relationship manager if you have any questions.

Information provided in, and presentation of, this document are for informational and educational purposes only and are not a recommendation to take any particular action, or any action at all, nor an offer or solicitation to buy or sell any securities or services presented. It is not investment advice. Fidelity does not provide legal or tax advice.

Before making any investment decisions, you should consult with your own professional advisers and take into account all of the particular facts and circumstances of your individual situation. Fidelity and its representatives may have a conflict of interest in the products or services mentioned in these materials because they have a financial interest in them, and receive compensation, directly or indirectly, in connection with the management, distribution, and/or servicing of these products or services, including Fidelity funds, certain third-party funds and products, and certain investment services.

Risks

Past performance is no guarantee of future results. An investment may be risky and may not be suitable for an investor's goals, objectives and risk tolerance. Investors should be aware that an investment's value may be volatile and any investment involves the risk that you may lose money.

The value of a strategy's investments will vary in response to many factors, including adverse issuer, political, regulatory, market, or economic developments. The value of an individual security or a particular type of security can be more volatile than and perform differently from the market as a whole. Nearly all accounts are subject to volatility in non-U.S. markets, either through direct exposure or indirect effects on U.S. markets from events abroad, including fluctuations in foreign currency exchange rates and, in the case of less developed markets, currency illiquidity. Events such as natural disasters, pandemics, epidemics, and social unrest in one country, region, or financial market may adversely impact issuers in a different country, region, or financial market. Performance could be negatively impacted if the value of a portfolio holding were harmed by such political or economic conditions or events. Moreover, such negative political and economic conditions and events could disrupt the processes necessary for investment operations.

The performance of fixed income strategies will change daily based on changes in interest rates and market conditions and in response to other economic, political, or financial developments. Debt securities are sensitive to changes in interest rates depending on their maturity and may involve the risk that their prices may decline if interest rates rise or, conversely, if interest rates decline, their prices may increase. Debt securities carry the risk of default, prepayment risk, and inflation risk. Changes specific to an issuer, such as its financial condition or its economic environment, can affect the credit quality or value of an issuer's securities. Lower-quality debt securities (those rated or considered below investment-grade quality, also referred to as high-yield debt securities) and certain types of other securities are more volatile, speculative and involve greater risk due to increased sensitivity to adverse issuer, political, regulatory, and market developments, especially in periods of general economic difficulty. The value of mortgage securities may change due to shifts in the market's perception of issuers and changes in interest rates, regulatory, or tax changes.

Derivatives may be volatile and involve significant risk, such as credit risk, currency risk, leverage risk, counterparty risk, and liquidity risk. Using derivatives can disproportionately increase losses and reduce opportunities for gains in certain circumstances.

The securities, derivatives, and currency markets of emerging-market countries are generally smaller, less developed, less liquid, and more volatile than those of the United States and other developed markets, and disclosure and regulatory standards in many respects are less stringent. There also may be a lower level of monitoring and regulation of markets in emerging market countries and the activities of investors in such markets and enforcement of existing regulations may be extremely limited and arbitrary. Emerging-market countries are more likely to experience political uncertainty and instability, including the risk of war, terrorism, nationalization, limitations on the removal of funds or other assets, impacts of the spread of infectious diseases, or diplomatic developments that affect investments in these countries. In many cases, there is a heightened possibility of government control of the economy, expropriation or confiscatory taxation, imposition of withholding taxes on interest payments, or other similar developments.

These materials contain statements that are "forward-looking statements," which are based on certain assumptions of future events. FIAM does not assume any duty to update any forward-looking statement. Actual events may differ from those assumed. There can be no assurance that forward-looking statements, including any projected returns, will materialize or that actual market conditions and/or performance results will not be materially different or worse than those presented.

Important Information, continued

Performance Data

Unless otherwise indicated performance data shown is client data. Performance data is generally presented gross of any fees and expenses, including advisory fees, which when deducted will reduce returns. All results reflect realized and unrealized appreciation and the reinvestment of dividends and investment income, if applicable. Taxes have not been deducted.

FIAM claims compliance with the Global Investment Performance Standards (GIPS®) as part of the Fidelity Investments firm.

Performance for individual accounts will differ from performance for composites and representative accounts due to factors, including but not limited to, portfolio size, trading restrictions, account objectives and restrictions, and factors specific to a particular investment structure. If representative account information is shown, it is based on an account in the subject strategy's composite that generally reflects that strategy's management and is not based on performance.

. * * * *

Fidelity Institutional Asset Management (FIAM) includes the following entities that provide investment services: Fidelity Institutional Asset Management Trust Company, a New Hampshire trust company (FIAM TC) and FIAM LLC, a U.S. registered investment adviser. Fidelity Asset Management Solutions (FAMS) provides a broad array of investment solutions with its Global Institutional Solutions (GIS), Global Asset Allocation (GAA), and institutional equity, fixed income, high income, and alternative asset management teams through FIAM LLC, Fidelity Institutional Asset Management Trust Company and Fidelity Diversifying Solutions LLC.

"Fidelity Investments" and/or "Fidelity" refers collectively to FMR LLC, a U.S. company, and its subsidiaries, including but not limited to Fidelity Management & Research Company LLC (FMR), FIAM LLC and FIAM TC.

Certain data and other information in this presentation have been supplied by outside sources and are believed to be reliable and current. Data and information from third-party databases, such as eVestment Alliance, Callan, and Morningstar are self-reported by firms that generally pay a subscription fee to use such databases, and the database sponsors do not guarantee or audit the accuracy, timeliness, or completeness of the data and information provided, including any rankings. Rankings or similar data reflect information at the time rankings were retrieved from a third-party database, and such rankings may vary significantly as additional data from managers is reported. Rankings may include a variety of product structures, including some in which certain clients may not be eligible to invest. FIAM cannot verify the accuracy of information from outside sources, and potential investors should be aware that such information is subject to change without notice.

FIAM has prepared this presentation for, and only intends to provide it to, institutional, sophisticated, and/or qualified investors in one-on-one or comparable presentations. Do not distribute or reproduce this report.

Third-party trademarks and service marks are the property of their respective owners. All other trademarks and service marks are the property of FMR LLC or its affiliated companies.

Professional Designation

The Chartered Financial Analyst (CFA) designation is offered by the CFA Institute. To obtain the CFA charter, candidates must pass three exams demonstrating their competence, integrity, and extensive knowledge in accounting, ethical and professional standards, economics, portfolio management, and security analysis, and must also have at least four years of qualifying work experience, among other requirements. CFA® and Chartered Financial Analyst® are registered trademarks owned by CFA Institute.

Not FDIC Insured • No Bank Guarantee • May Lose Value



1070609.1.0
FIAM-IA
EXPIRES: 3/14/23

© 2023 FMR LLC. All rights reserved.



THE STATE
of **ALASKA**
GOVERNOR MIKE DUNLEAVY

Market Update, December 2022 Performance, and Initial Asset Allocation Discussion



February 2023

Zachary Hanna, CFA
Chief Investment Officer, Treasury Division
Alaska Department of Revenue

Economic and Market Update

The Economy, Geopolitics, and Inflation

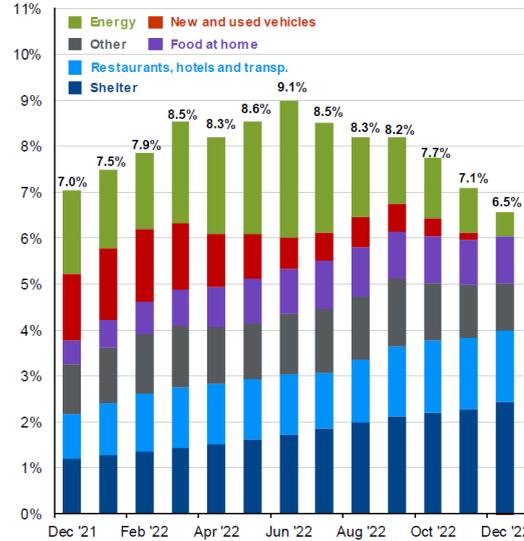
- Early in 2022, the Russia/Ukraine crisis dominated headlines and capital markets. The direct impact to equity markets was initially muted, but the effect on energy inflation and European growth was pronounced.
- Since then, Inflation has dominated markets with CPI peaking at 9.1% in June before declining most recently to 6.4% in January. Inflation is still above consensus and well in excess of the Fed's target.
- Despite moderating, employment remains tight with continued wage pressure in some sectors.
- Inflation and rising interest rates has created a challenging dynamic for economic growth.

Inflation drivers and expectations

GTM U.S. 30

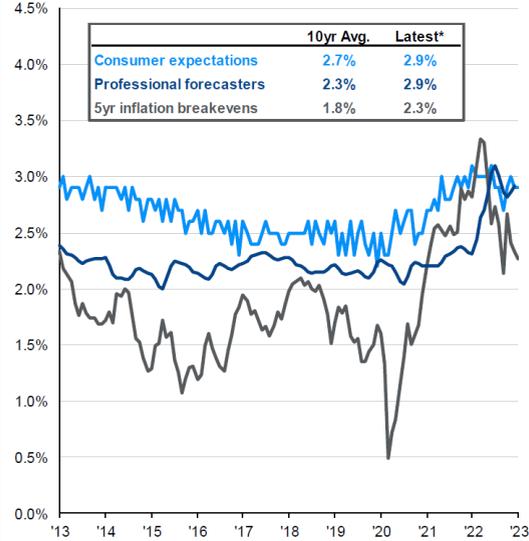
Contributors to headline inflation

Contribution to y/y % change in CPI, not seasonally adjusted



Inflation expectations, next 5 years

% change vs. prior year, non-seasonally adjusted



Source: Bureau of Labor Statistics, FactSet, Federal Reserve Bank of Philadelphia, University of Michigan, J.P. Morgan Asset Management. Contributions mirror the BLS methodology on Table 7 of the CPI report. Values may not sum to headline CPI figures due to rounding and underlying calculations. "Shelter" includes owner's equivalent rent and rent of primary residence. "Other" primarily reflects household furnishings, apparel, education and communication services, medical care services and other personal services. *Reflects the latest daily 5yr/5yr breakevens, preliminary or final Consumer Sentiment survey, and the quarterly Survey of Professional Forecasters interpolated to a monthly series. The Survey of Professional Forecasters reflects the median estimate by professional forecasters of average CPI inflation over the next 5 years. The series has been adjusted by J.P. Morgan Asset Management to exclude realized inflation readings within the forecast window. Guide to the Markets - U.S. Data are as of January 31, 2023.

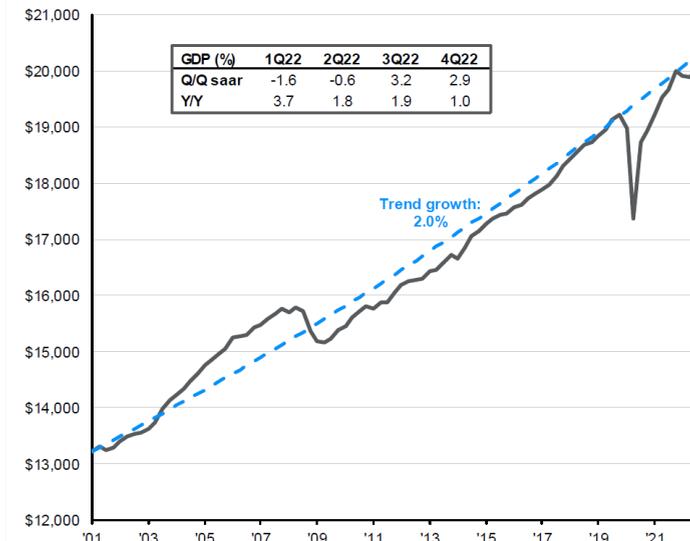
J.P.Morgan
ASSET MANAGEMENT

Economic growth and the composition of GDP

GTM U.S. 18

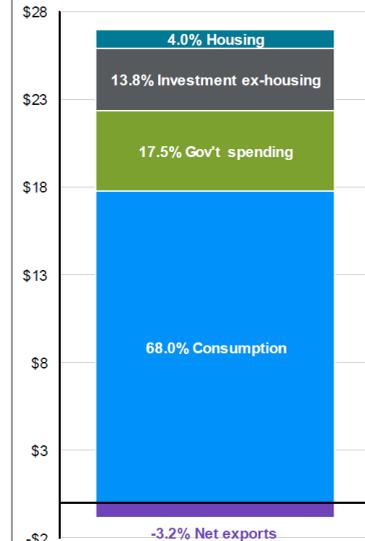
Real GDP

Billions of chained (2012) dollars, seasonally adjusted at annual rates



Components of GDP

4Q22 nominal GDP, USD trillions



Source: BEA, FactSet, J.P. Morgan Asset Management. Values may not sum to 100% due to rounding. Trend growth is measured as the average annual growth rate from business cycle peak 1Q01 to business cycle peak 4Q19. Guide to the Markets - U.S. Data are as of January 31, 2023.

J.P.Morgan
ASSET MANAGEMENT

Interest Rates and the Federal Reserve

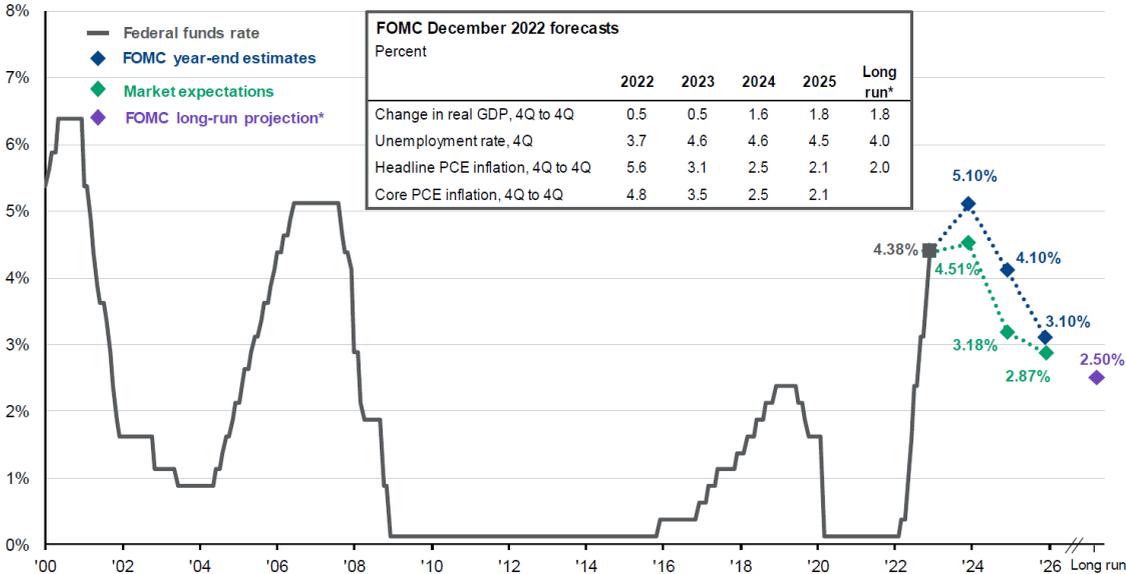
- In 2022, the Federal Reserve was catalyzed into action to control inflation.
- The Fed raised rates from zero to 4.75% by February of 2023.
- The Fed also plans to decrease the size of its balance sheet, which doubled through the pandemic.
- These actions have had a direct impact on fixed income markets and other capital markets.

The Fed and interest rates

GTM U.S. 34

Federal funds rate expectations

FOMC and market expectations for the federal funds rate



Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management. Market expectations are based off of the respective Federal Funds Futures contracts for December expiry. *Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated. Guide to the Markets – U.S. Data are as of January 31, 2023.

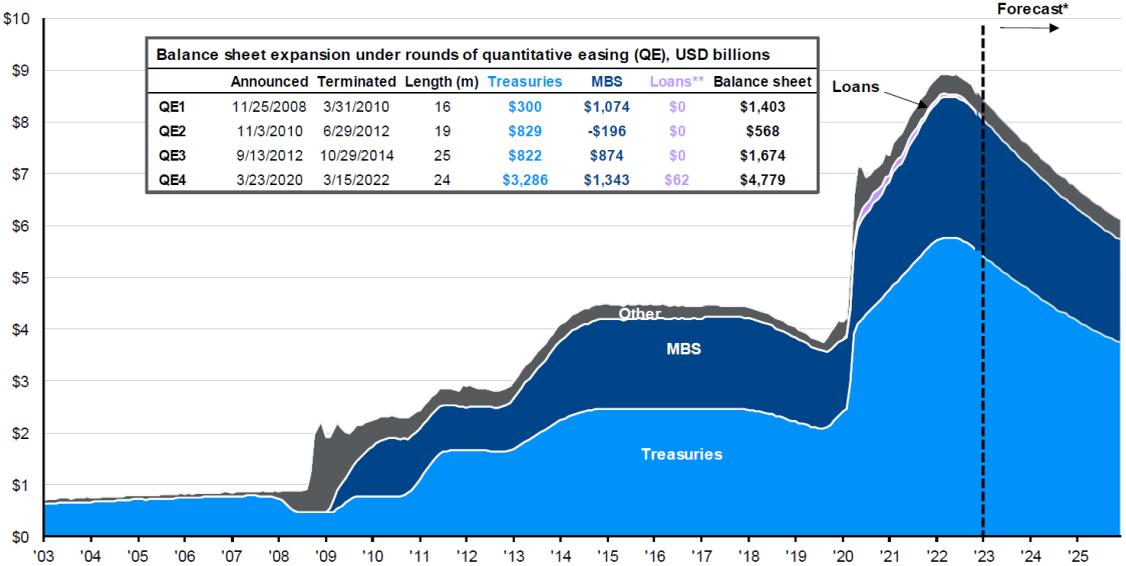


The Federal Reserve balance sheet

GTM U.S. 35

The Federal Reserve balance sheet

USD trillions



Source: FactSet, Federal Reserve, J.P. Morgan Investment Bank, J.P. Morgan Asset Management. At its peak, the balance sheet contained \$6.8tn in Treasuries and \$2.7tn in MBS. *Per the most recent Federal Reserve policy meeting, the forecast assumes the Federal Reserve began balance sheet runoff in June 2022. From June to August, the committee allowed up to \$30bn in U.S. Treasury securities and \$17.5bn in agency mortgage-backed securities to mature per month, with that pace doubling to \$60bn and \$35bn, respectively, in September. Any maturing amount in excess of these caps are reinvested. The forecast does not include the active selling of securities from the committee. **Loans include liquidity and credit extended through corporate credit facilities established in March 2020. Other includes primary, secondary and seasonal loans, repurchase agreements, foreign currency reserves and maiden lane securities. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated. Guide to the Markets – U.S. Data are as of January 31, 2023.



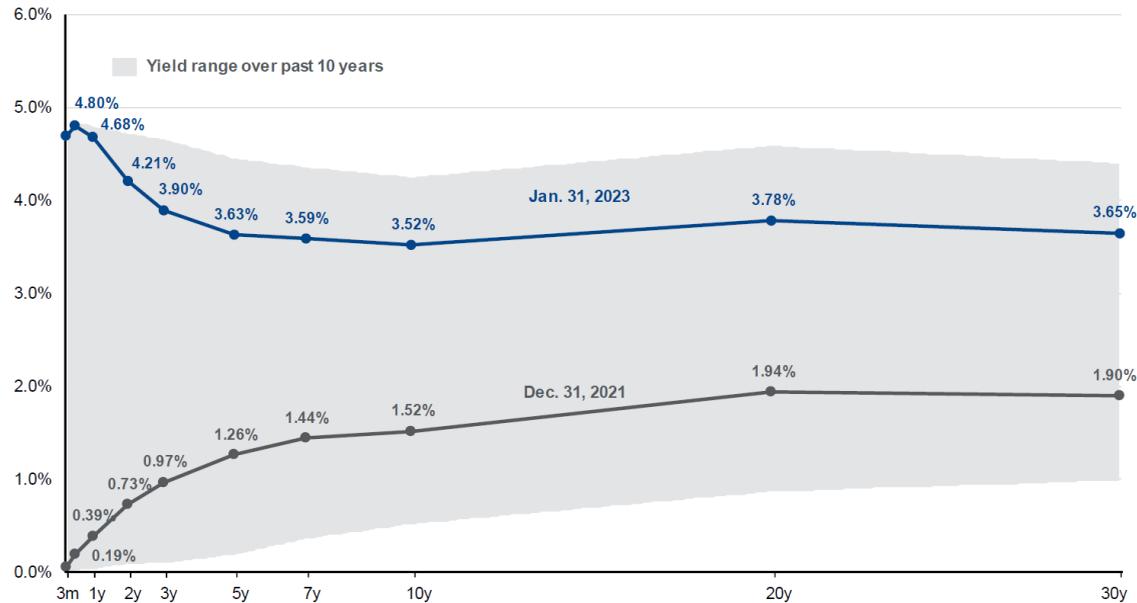
Fixed Income

- Yields have increased dramatically in reaction to the Fed's rate increase plans but have fallen from 10-year high levels.
- Most bond sectors performed poorly in 2022.
- Fixed income investments remain exposed to further rate increases but are cushioned by higher starting yields.

Yield curve

GTM U.S. 38

U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management. Guide to the Markets – U.S. Data are as of January 31, 2023.

J.P.Morgan
ASSET MANAGEMENT

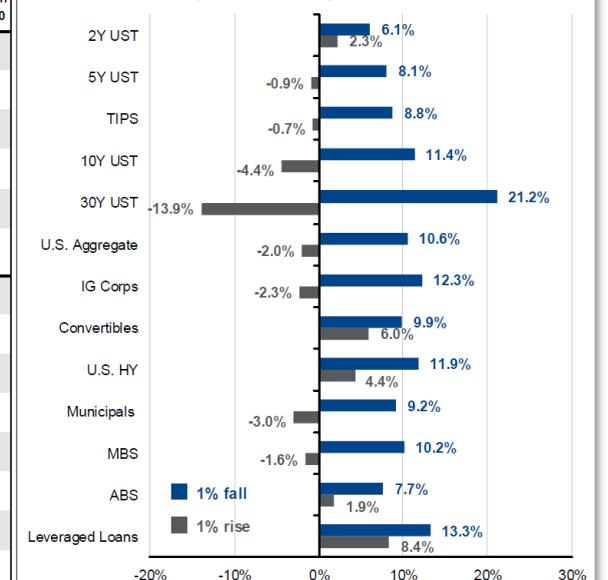
Fixed income market dynamics

GTM U.S. 37

	Yield		Return			
	1/31/2023	12/31/2022	2023 YTD	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
U.S. Treasuries						
2-Year	4.21%	4.41%	0.65%	2 years	0.72	-0.20
5-Year	3.63%	3.99%	1.87%	5	0.93	-0.16
TIPS	1.28%	1.58%	1.83%	10	0.60	0.36
10-Year	3.52%	3.88%	3.11%	10	1.00	-0.15
30-Year	3.65%	3.97%	6.10%	30	0.93	-0.18
Sector						
U.S. Aggregate	4.30%	4.68%	3.08%	8.4	0.85	0.21
IG Corps	4.96%	5.42%	4.01%	11.1	0.52	0.47
Convertibles	7.58%	7.58%	5.53%	-	-0.16	0.87
U.S. HY	8.14%	8.96%	3.81%	5.5	-0.11	0.74
Municipals	3.10%	3.55%	2.87%	13.0	0.49	0.22
MBS	4.28%	4.71%	3.29%	7.3	0.77	0.14
ABS	5.52%	5.89%	1.14%	3.6	0.15	0.01
Leveraged Loans	10.82%	11.41%	2.58%	2.4	-0.35	0.60

Impact of a 1% rise or fall in interest rates

Total return, assumes a parallel shift in the yield curve



Source: Bloomberg, FactSet, Standard & Poor's, U.S. Treasury, J.P. Morgan Asset Management. Sectors shown above are provided by Bloomberg unless otherwise noted and are represented by – U.S. Aggregate; MBS: U.S. Aggregate Securitized – MBS; ABS: J.P. Morgan ABS Index; Corporates: U.S. Corporates; Municipals: Muni Bond; High Yield: Corporate High Yield; Leveraged Loans: J.P. Morgan Leveraged Loan Index; TIPS: Treasury Inflation-Protected Securities; Convertibles: U.S. Convertibles Composite. Convertibles yield is as of most recent month end and is based on U.S. portion of Bloomberg Global Convertibles Index. Yield and return information based on bellwethers for Treasury securities. Sector yields reflect yield-to-worst. Convertibles yield is based on U.S. portion of Bloomberg Global Convertibles. Correlations are based on 15-years of monthly returns for all sectors. Past performance is not indicative of future results. Guide to the Markets – U.S. Data are as of January 31, 2023.

J.P.Morgan
ASSET MANAGEMENT

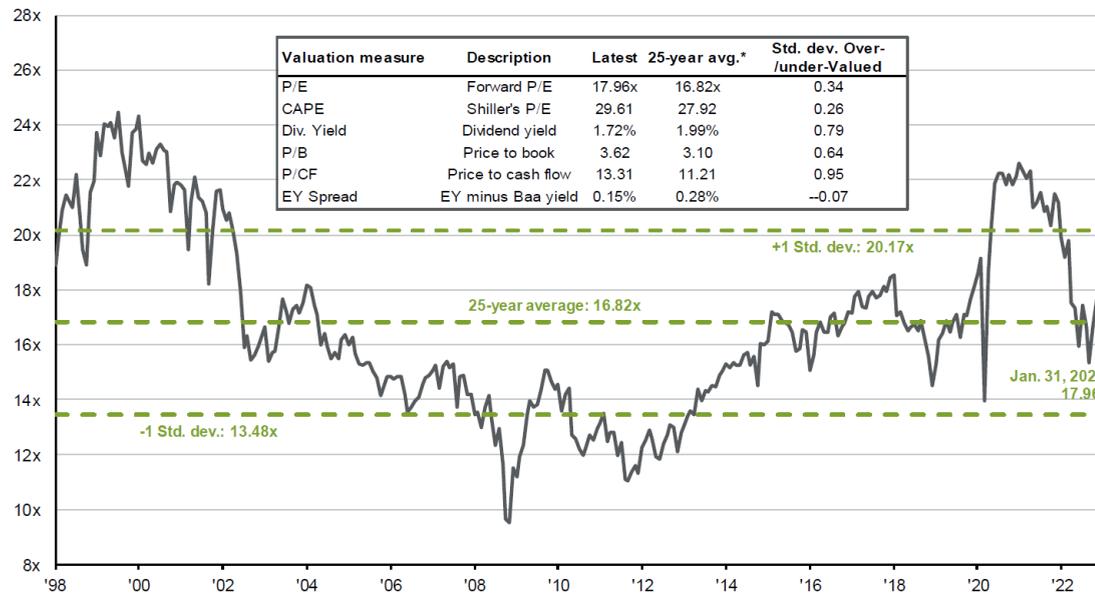
Equity Markets

- With the stock market correction in 2022, U.S. equities are back to more normal valuations.
- Corporate profits are exposed to slowing growth and inflation and may not price in a potential recession.
- International equity valuations remain close to all time lows relative to the U.S. with high dividend yields.

S&P 500 valuation measures

GTM U.S. 5

S&P 500 Index: Forward P/E ratio



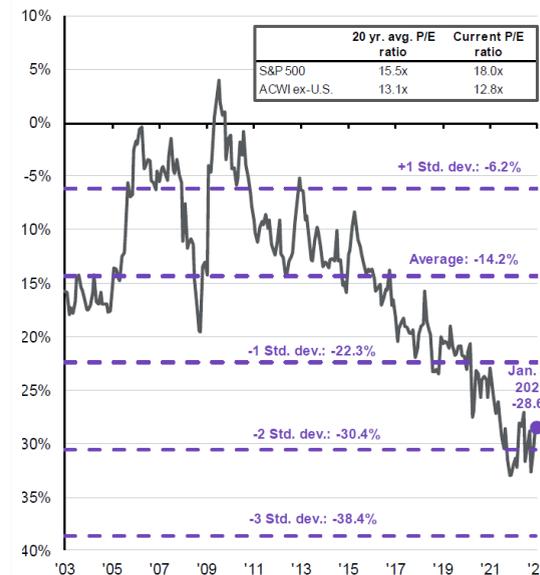
Source: FactSet, FRB, Refinitiv Datastream, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.
Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since January 1998 and by FactSet since January 2022. Current next 12-months consensus earnings estimates are \$224. Average P/E and standard deviations are calculated using 25 years of history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over/under-valued is calculated using the average and standard deviation over 25 years for each measure. *P/CF is a 20-year average due to cash flow availability.
Guide to the Markets - U.S. Data are as of January 31, 2023.

J.P.Morgan
ASSET MANAGEMENT

International valuations and dividend yields

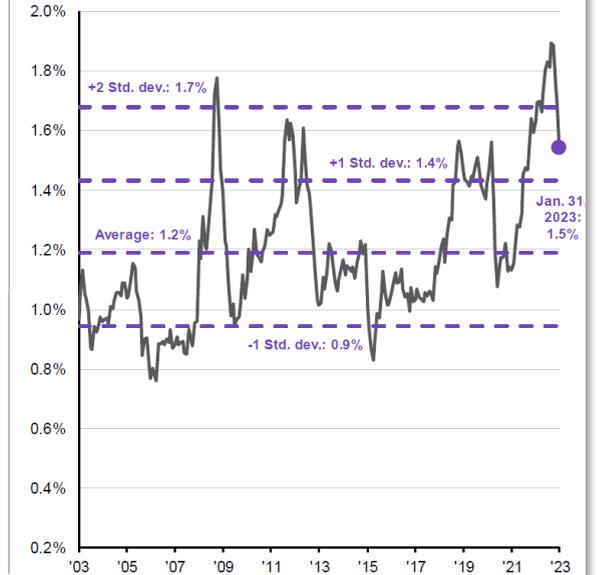
GTM U.S. 48

International: Price-to-earnings discount vs. U.S. MSCI AC World ex-U.S. vs. S&P 500 Indices, next 12 months



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.
Guide to the Markets - U.S. Data are as of January 31, 2023.

International: Difference in dividend yields vs. U.S. MSCI AC World ex-U.S. minus S&P 500 Indices, next 12 months



J.P.Morgan
ASSET MANAGEMENT

Historical Stock and Bond Declines

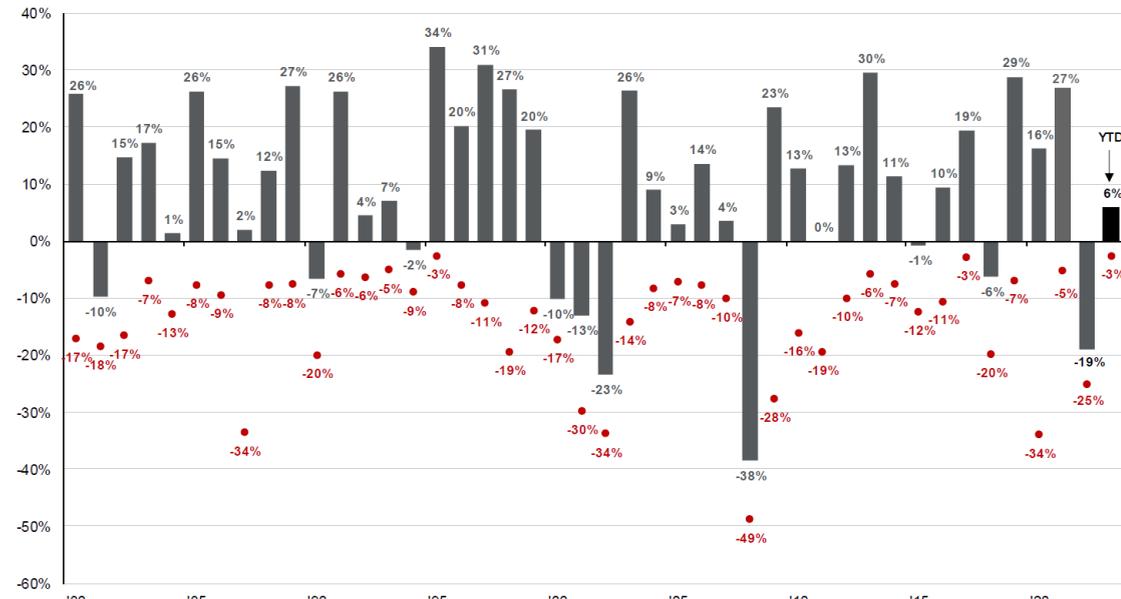
- Stocks fell 19% in 2022.
- Fixed income was down an unprecedented 13% in 2022 after rates increased strongly from a low starting point.

Annual returns and intra-year declines

GTM U.S. 15

S&P intra-year declines vs. calendar year returns

Despite average intra-year drops of 14.3%, annual returns were positive in 32 of 43 years



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management. Returns are based on price index only and do not include dividends. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1980 to 2022, over which time period the average annual return was 8.7%. Guide to the Markets – U.S. Data are as of January 31, 2023.

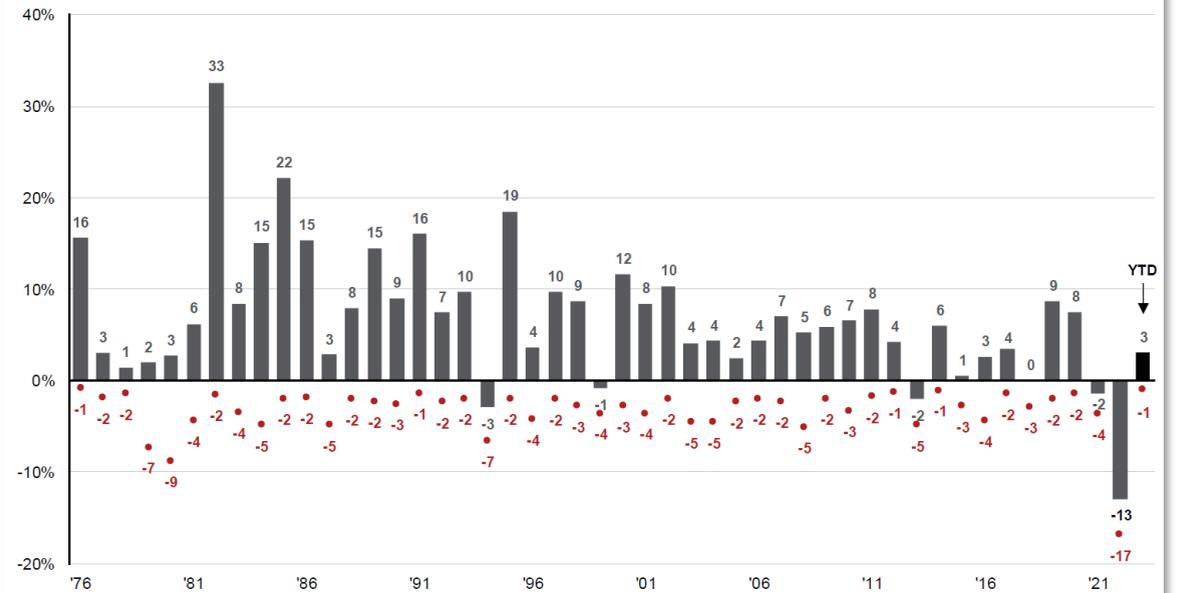
J.P.Morgan
ASSET MANAGEMENT

Bloomberg U.S. Agg. annual returns and intra-year declines

GTM U.S. 44

Bloomberg U.S. Aggregate intra-year declines vs. calendar year returns

Despite average intra-year drops of 3.3%, annual returns positive in 42 of 47 years



Source: Bloomberg, FactSet, J.P. Morgan Asset Management. Returns are based on total return. Intra-year drops refers to the largest market drops from a peak to a trough during the year. For illustrative purposes only. Returns shown are calendar year returns from 1976 to 2022, over which time period the average annual return was 6.6%. Returns from 1976 to 1989 are calculated on a monthly basis; daily data are used afterwards. Guide to the Markets – U.S. Data are as of January 31, 2023.

J.P.Morgan
ASSET MANAGEMENT

Capital Market Performance Update

- Investment performance was challenging for both stocks and bonds in 2022 due to inflation and rising interest rates.
- Cash was one of the only investments with positive performance for the year.
- U.S. Fixed Income was down 13% and U.S. Equities were down 19%, which led to historically difficult conditions for balanced stock and bond portfolios.

Asset Mix	2022 Return
Cash Only	1.5%
U.S. Bonds Only	-13.0%
20% Stock/80%Bond	-14.2%
40% Stock/60%Bond	-15.5%
60% Stock/40%Bond	-16.7%
70% Stock/30%Bond	-17.3%
80% Stock/20%Bond	-18.0%
U.S. Stocks Only	-19.2%

- 2022 losses were concentrated in the first half of the year and markets rebounded modestly in the second half – particularly in the 4th quarter.

2018	2019	2020	2021	2022	2022-Half1	2022-Half2	Last Quarter
Cash Equivalents 1.9%	Broad U.S. Equity 31.0%	Broad U.S. Equity 20.9%	REITs 41.3%	Cash Equivalents 1.5%	Cash Equivalents 0.1%	High Yield 3.5%	International Equity 14.3%
Core U.S. Fixed Income 0.0%	REITs 28.7%	TIPS 11.0%	Broad U.S. Equity 25.7%	High Yield (11.2%)	TIPS (8.9%)	International Equity 3.0%	Broad U.S. Equity 7.2%
TIPS (1.3%)	International Equity 21.5%	International Equity 10.7%	International Equity 7.8%	TIPS (11.8%)	Core U.S. Fixed Income (10.3%)	Broad U.S. Equity 2.4%	High Yield 4.2%
High Yield (2.1%)	High Yield 14.3%	Core U.S. Fixed Income 7.5%	TIPS 6.0%	Core U.S. Fixed Income (13.0%)	High Yield (14.2%)	Cash Equivalents 1.3%	REITs 4.1%
REITs (4.0%)	Core U.S. Fixed Income 8.7%	High Yield 7.1%	High Yield 5.3%	International Equity (16.0%)	International Equity (18.4%)	Core U.S. Fixed Income (3.0%)	TIPS 2.0%
Broad U.S. Equity (5.2%)	TIPS 8.4%	Cash Equivalents 0.7%	Cash Equivalents 0.0%	Broad U.S. Equity (19.2%)	REITs (19.2%)	TIPS (3.2%)	Core U.S. Fixed Income 1.9%
International Equity (14.2%)	Cash Equivalents 2.3%	REITs (5.1%)	Core U.S. Fixed Income (1.5%)	REITs (24.9%)	Broad U.S. Equity (21.1%)	REITs (7.1%)	Cash Equivalents 0.8%

Commissioner's Report

December 2022

DOR Commissioner's Report: Market Values for Month Ending 12/31/2022

Market Value

Plan Name	Cash Equivalents	Domestic Equity	Fixed Income	Interm. Fixed Income	Int'l Equity	REITs	Market Value
2008 Transportation Project Government Bonds (AY2Q)	\$772,772						\$772,772
2013B Tax Exempt Education (AY3Z)	\$194,612						\$194,612
2016A - 2012 Transportation Bond Act (AY3Y)	\$2,137,828						\$2,137,828
2016B - 2012 Transportation Bond Act (AY3Q)	\$59,182,957						\$59,182,957
Alaska Higher Education Investment (AY3L)	\$4,744,860	\$133,561,866	\$99,608,697		\$92,571,569	\$16,662,163	\$347,149,154
Alaska Mental Health Trust Reserve (AY2L)	\$611,149	\$22,103,318	\$14,989,758		\$14,449,619		\$52,153,845
ASLC Investment Fund (AY3S)	\$15,846,357	\$15,718,217	\$51,430,784		\$10,621,954	\$2,867,755	\$96,485,068
Constitutional Budget Reserve Fund (AY19)	\$1,065,484,526						\$1,065,484,526
Education Endowment Fund (AY3G)	\$13,569	\$359,931	\$268,385		\$249,411	\$44,869	\$936,165
EVOS Habitat Investment (AY2H)	\$28,677,805			\$53,793,452			\$82,471,257
EVOS Research Investment (AY02)	\$19,650,767			\$36,877,474			\$56,528,241
GeFONSI I (AY01)	\$2,083,152,157			\$323,681,372			\$2,406,833,530
GeFONSI II (AY3F)	\$1,025,132,880	\$69,794,603		\$547,231,180	\$37,732,176		\$1,679,890,840
Illinois Creek Mine Reclamation (AY9J)	\$17,158	\$482,821	\$360,084		\$334,605	\$60,222	\$1,254,891
International Airports 2006 Non-AMT (AY9X)	\$1,065,203						\$1,065,203
International Airports Repair & Replacement Fund (AY05)	\$507,505						\$507,505
International Airports Revenue Fund (AY04)	\$159,649,839			\$27,954,048			\$187,603,887
International Airports Series 2002 Reserve Account (AY2E)	\$15,025,044						\$15,025,044
International Airports Series 2003 Reserve (AY2U)	\$10,682,100						\$10,682,100
Investment Loss Trust Fund (AY28)	\$3,366,840						\$3,366,840
PCE Endowment Fund (AY13)	\$13,009,785	\$368,535,347	\$274,849,038		\$255,431,595	\$45,975,681	\$957,801,445
Permanent Fund Dividend Holding Account (AY2G)	\$81,808,759						\$81,808,759
Public School Trust Fund (AY08)	\$7,902,869	\$270,100,947	\$201,437,894		\$187,206,767	\$33,695,680	\$700,344,157
RHIF LTC Insurance (AY11)	\$10,722,418	\$239,226,144	\$245,188,847		\$162,586,073	\$33,254,792	\$690,978,275
RHIF Major Medical (AY03)	\$19,267,936						\$19,267,936

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Market Values for Month Ending 12/31/2022

Actual Allocation

Plan Name	Cash Equivalents	Domestic Equity	Fixed Income	Interm. Fixed Income	Int'l Equity	REITs
2008 Transportation Project Government Bonds (AY2Q)	100.00%					
2013B Tax Exempt Education (AY3Z)	100.00%					
2016A - 2012 Transportation Bond Act (AY3Y)	100.00%					
2016B - 2012 Transportation Bond Act (AY3Q)	100.00%					
Alaska Higher Education Investment (AY3L)	1.37%	38.47%	28.69%		26.67%	4.80%
Alaska Mental Health Trust Reserve (AY2L)	1.17%	42.38%	28.74%		27.71%	
ASLC Investment Fund (AY3S)	16.42%	16.29%	53.30%		11.01%	2.97%
Constitutional Budget Reserve Fund (AY19)	100.00%					
Education Endowment Fund (AY3G)	1.45%	38.45%	28.67%		26.64%	4.79%
EVOS Habitat Investment (AY2H)	34.77%			65.23%		
EVOS Research Investment (AY02)	34.76%			65.24%		
GeFONSI I (AY01)	86.55%			13.45%		
GeFONSI II (AY3F)	61.02%	4.15%		32.58%	2.25%	
Illinois Creek Mine Reclamation (AY9J)	1.37%	38.48%	28.69%		26.66%	4.80%
International Airports 2006 Non-AMT (AY9X)	100.00%					
International Airports Repair & Replacement Fund (AY05)	100.00%					
International Airports Revenue Fund (AY04)	85.10%			14.90%		
International Airports Series 2002 Reserve Account (AY2E)	100.00%					
International Airports Series 2003 Reserve (AY2U)	100.00%					
Investment Loss Trust Fund (AY28)	100.00%					
PCE Endowment Fund (AY13)	1.36%	38.48%	28.70%		26.67%	4.80%
Permanent Fund Dividend Holding Account (AY2G)	100.00%					
Public School Trust Fund (AY08)	1.13%	38.57%	28.76%		26.73%	4.81%
RHIF LTC Insurance (AY11)	1.55%	34.62%	35.48%		23.53%	4.81%
RHIF Major Medical (AY03)	100.00%					

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Market Values for Month Ending 12/31/2022

Target Allocation

Plan Name	Cash Equivalents	Domestic Equity	Fixed Income	Interm. Fixed Income	Int'l Equity	REITs
2008 Transportation Project Government Bonds (AY2Q)	100.00%					
2013B Tax Exempt Education (AY3Z)	100.00%					
2016A - 2012 Transportation Bond Act (AY3Y)	100.00%					
2016B - 2012 Transportation Bond Act (AY3Q)	100.00%					
Alaska Higher Education Investment (AY3L)	1.00%	39.00%	30.00%		25.00%	5.00%
Alaska Mental Health Trust Reserve (AY2L)	1.00%	43.00%	30.00%		26.00%	
ASLC Investment Fund (AY3S)	17.00%	16.00%	54.00%		10.00%	3.00%
Constitutional Budget Reserve Fund (AY19)	100.00%					
Education Endowment Fund (AY3G)	1.00%	39.00%	30.00%		25.00%	5.00%
EVOS Habitat Investment (AY2H)	35.00%			65.00%		
EVOS Research Investment (AY02)	35.00%			65.00%		
GeFONSI I (AY01)	85.00%			15.00%		
GeFONSI II (AY3F)	61.00%	4.00%		33.00%	2.00%	
Illinois Creek Mine Reclamation (AY9J)	1.00%	39.00%	30.00%		25.00%	5.00%
International Airports 2006 Non-AMT (AY9X)	100.00%					
International Airports Repair & Replacement Fund (AY05)	100.00%					
International Airports Revenue Fund (AY04)	85.00%			15.00%		
International Airports Series 2002 Reserve Account (AY2E)	100.00%					
International Airports Series 2003 Reserve (AY2U)	100.00%					
Investment Loss Trust Fund (AY28)	100.00%					
PCE Endowment Fund (AY13)	1.00%	39.00%	30.00%		25.00%	5.00%
Permanent Fund Dividend Holding Account (AY2G)	100.00%					
Public School Trust Fund (AY08)	1.00%	39.00%	30.00%		25.00%	5.00%
RHIF LTC Insurance (AY11)	1.00%	35.00%	37.00%		22.00%	5.00%
RHIF Major Medical (AY03)	100.00%					

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Market Values for Month Ending 12/31/2022

Relative Allocation

Plan Name	Cash Equivalents	Domestic Equity	Fixed Income	Interm. Fixed Income	Int'l Equity	REITs
2008 Transportation Project Government Bonds (AY2Q)	0.00% ●					
2013B Tax Exempt Education (AY3Z)	0.00% ●					
2016A - 2012 Transportation Bond Act (AY3Y)	0.00% ●					
2016B - 2012 Transportation Bond Act (AY3Q)	0.00% ●					
Alaska Higher Education Investment (AY3L)	0.37% ▲	-0.53% ◆	-1.31% ✖		1.67% ✖	-0.20% ●
Alaska Mental Health Trust Reserve (AY2L)	0.17% ●	-0.62% ◆	-1.26% ✖		1.71% ✖	
ASLC Investment Fund (AY3S)	-0.58% ◆	0.29% ▲	-0.70% ◆		1.01% ✖	-0.03% ●
Constitutional Budget Reserve Fund (AY19)	0.00% ●					
Education Endowment Fund (AY3G)	0.45% ▲	-0.55% ◆	-1.33% ✖		1.64% ✖	-0.21% ●
EVOS Habitat Investment (AY2H)	-0.23% ●			0.23% ●		
EVOS Research Investment (AY02)	-0.24% ●			0.24% ●		
GeFONSI I (AY01)	1.55% ✖			-1.55% ✖		
GeFONSI II (AY3F)	0.02% ●	0.15% ●		-0.42% ▲	0.25% ●	
Illinois Creek Mine Reclamation (AY9J)	0.37% ▲	-0.52% ◆	-1.31% ✖		1.66% ✖	-0.20% ●
International Airports 2006 Non-AMT (AY9X)	0.00% ●					
International Airports Repair & Replacement Fund (AY05)	0.00% ●					
International Airports Revenue Fund (AY04)	0.10% ●			-0.10% ●		
International Airports Series 2002 Reserve Account (AY2E)	0.00% ●					
International Airports Series 2003 Reserve (AY2U)	0.00% ●					
Investment Loss Trust Fund (AY28)	0.00% ●					
PCE Endowment Fund (AY13)	0.36% ▲	-0.52% ◆	-1.30% ✖		1.67% ✖	-0.20% ●
Permanent Fund Dividend Holding Account (AY2G)	0.00% ●					
Public School Trust Fund (AY08)	0.13% ●	-0.43% ▲	-1.24% ✖		1.73% ✖	-0.19% ●
RHIF LTC Insurance (AY11)	0.55% ◆	-0.38% ▲	-1.52% ✖		1.53% ✖	-0.19% ●
RHIF Major Medical (AY03)	0.00% ●					

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Net Pool Performance for Month Ending 12/31/2022

Pool Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
Broad Market Fixed Income Pool	-0.57%	2.20%	-2.51%	-12.24%	-2.30%	0.30%	1.15%	1.24%
Domestic Equity*	-5.86%	7.21%	2.45%	-19.08%	7.08%	8.79%		
Intermediate-term Fixed Income Pool	0.17%	0.85%						
Internally Managed REITs	-4.94%	4.17%	-7.07%	-24.86%				
International Equity*	-0.74%	14.24%	2.89%	-15.92%	0.10%	1.03%		
Short-term Fixed Income Pool	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	0.96%
Tactical Bond Pool	-0.48%	2.74%	-0.03%					
Benchmark Performance	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
Broad Market Fixed Income Pool	-0.45%	1.87%	-2.97%	-13.01%	-2.71%	0.02%	0.89%	1.06%
Domestic Equity*	-5.86%	7.18%	2.40%	-19.21%	7.07%	8.79%		
Intermediate-term Fixed Income Pool	0.18%	0.73%						
Internally Managed REITs	-4.97%	4.14%	-7.14%	-24.95%				
International Equity*	-0.75%	14.29%	2.96%	-16.00%	0.07%	0.88%		
Short-term Fixed Income Pool	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%
Tactical Bond Pool	-0.45%	1.87%	-2.97%					
Relative Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
Broad Market Fixed Income Pool	-0.12%	0.32%	0.46%	0.77%	0.42%	0.27%	0.26%	0.18%
Domestic Equity*	0.00%	0.03%	0.05%	0.13%	0.01%	0.00%		
Intermediate-term Fixed Income Pool	-0.01%	0.12%						
Internally Managed REITs	0.03%	0.03%	0.07%	0.09%				
International Equity*	0.01%	-0.05%	-0.07%	0.09%	0.03%	0.14%		
Short-term Fixed Income Pool	0.07%	0.11%	0.19%	0.14%	0.10%	0.13%	0.20%	0.20%
Tactical Bond Pool	-0.03%	0.86%	2.94%					

*Equity performance reflects data as of July 1, 2016 due to accounting structure change.

DOR Commissioner's Report: Net Plan Performance for Month Ending 12/31/2022

Plan Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
2008 Transportation Project Government Bonds (AY2Q)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	0.96%
2013B Tax Exempt Education (AY3Z)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	
2016A - 2012 Transportation Bond Act (AY3Y)	0.43%	0.95%	1.50%	1.60%	0.81%	1.38%	1.26%	
2016B - 2012 Transportation Bond Act (AY3Q)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%		
Alaska Higher Education Investment (AY3L)	-2.91%	7.27%	0.72%	-16.19%	2.75%	4.50%	6.35%	
Alaska Mental Health Trust Reserve (AY2L)	-2.91%	7.48%	1.26%	-14.48%	2.06%	3.90%	5.77%	6.47%
ASLC Investment Fund (AY3S)	-1.45%	4.07%	0.21%	-8.12%				
Constitutional Budget Reserve Fund (AY19)	0.43%	0.95%	1.50%	1.60%	1.06%	1.88%	2.02%	1.59%
Education Endowment Fund (AY3G)	-2.91%	7.26%	0.72%	-16.19%	2.75%			
EVOS Habitat Investment (AY2H)	0.26%	0.88%	4.71%	-8.98%	3.39%	4.74%	6.75%	7.48%
EVOS Research Investment (AY02)	0.26%	0.88%	6.83%	-9.22%	3.76%	4.96%	6.87%	7.57%
GeFONSI I (AY01)	0.40%	0.95%	1.20%	-0.28%	0.28%	1.12%	1.05%	0.83%
GeFONSI II (AY3F)	0.05%	1.44%	0.80%	-3.13%	0.37%			
Illinois Creek Mine Reclamation (AY9J)	-2.91%	7.27%	0.72%	-16.19%	2.75%	4.48%	6.33%	5.02%
International Airports 2006 Non-AMT (AY9X)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	0.96%
International Airports Repair & Replacement Fund (AY05)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	0.96%
International Airports Revenue Fund (AY04)	0.39%	0.94%	1.18%	-0.33%	0.46%	1.52%	1.78%	1.39%
International Airports Series 2002 Reserve Account (AY2E)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	0.96%
International Airports Series 2003 Reserve (AY2U)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	0.96%
Investment Loss Trust Fund (AY28)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	0.96%
PCE Endowment Fund (AY13)	-2.91%	7.27%	0.72%	-14.95%	-0.61%	2.43%	4.85%	6.29%
Permanent Fund Dividend Holding Account (AY2G)	0.43%	0.95%	1.44%	1.53%	0.80%	1.41%	1.35%	1.01%
Public School Trust Fund (AY08)	-2.92%	7.26%	0.71%	-16.19%	2.76%	4.48%	5.99%	5.91%
RHIF LTC Insurance (AY11)	-2.70%	6.69%	0.40%	-15.40%	1.59%	3.25%	4.57%	4.80%
RHIF Major Medical (AY03)	0.43%	0.95%	1.50%	1.60%	0.83%	1.39%	1.27%	0.96%

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Net Plan Performance for Month Ending 12/31/2022

Benchmark Performance	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
2008 Transportation Project Government Bonds (AY2Q)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%
2013B Tax Exempt Education (AY3Z)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	
2016A - 2012 Transportation Bond Act (AY3Y)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	
2016B - 2012 Transportation Bond Act (AY3Q)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%		
Alaska Higher Education Investment (AY3L)	-2.92%	7.15%	0.53%	-16.45%	2.69%	4.46%	6.32%	
Alaska Mental Health Trust Reserve (AY2L)	-2.92%	7.37%	1.02%	-14.88%	1.76%	3.72%	5.60%	6.14%
ASLC Investment Fund (AY3S)	-1.43%	3.86%	-0.30%	-8.51%				
Constitutional Budget Reserve Fund (AY19)	0.36%	0.84%	1.31%	1.46%	0.92%	1.75%	1.83%	1.44%
Education Endowment Fund (AY3G)	-2.92%	7.15%	0.53%	-16.45%	2.69%			
EVOS Habitat Investment (AY2H)	0.24%	0.77%	4.09%	-9.82%	3.05%	4.57%	6.58%	7.16%
EVOS Research Investment (AY02)	0.24%	0.77%	6.39%	-9.80%	3.49%	4.84%	6.77%	7.30%
GeFONSI I (AY01)	0.33%	0.83%	1.02%	-0.46%	0.19%	1.00%	0.88%	0.68%
GeFONSI II (AY3F)	0.00%	1.33%	0.80%	-3.12%	0.38%			
Illinois Creek Mine Reclamation (AY9J)	-2.92%	7.15%	0.53%	-16.45%	2.69%	4.46%	6.32%	4.91%
International Airports 2006 Non-AMT (AY9X)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%
International Airports Repair & Replacement Fund (AY05)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%
International Airports Revenue Fund (AY04)	0.33%	0.83%	1.02%	-0.47%	0.35%	1.41%	1.58%	1.22%
International Airports Series 2002 Reserve Account (AY2E)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%
International Airports Series 2003 Reserve (AY2U)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%
Investment Loss Trust Fund (AY28)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%
PCE Endowment Fund (AY13)	-2.92%	7.15%	0.53%	-15.20%	-0.63%	2.42%	4.83%	6.15%
Permanent Fund Dividend Holding Account (AY2G)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%
Public School Trust Fund (AY08)	-2.92%	7.15%	0.53%	-16.45%	2.69%	4.46%	5.96%	5.82%
RHIF LTC Insurance (AY11)	-2.70%	6.56%	0.13%	-15.72%	1.45%	3.17%	4.46%	4.65%
RHIF Major Medical (AY03)	0.36%	0.84%	1.31%	1.46%	0.72%	1.26%	1.07%	0.76%

*Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.

DOR Commissioner's Report: Net Plan Performance for Month Ending 12/31/2022

Relative Performance (Net of Fee)	1 Month	3 Month	FYTD	1 Year	3 Year	5 Year	7 Year	10 Year
2008 Transportation Project Government Bonds (AY2Q)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	0.20% ●	0.20% ●
2013B Tax Exempt Education (AY3Z)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	0.20% ●	
2016A - 2012 Transportation Bond Act (AY3Y)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.08% ●	0.12% ●	0.19% ●	
2016B - 2012 Transportation Bond Act (AY3Q)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	●	
Alaska Higher Education Investment (AY3L)	0.01% ●	0.12% ●	0.19% ●	0.26% ●	0.06% ●	0.04% ●	0.03% ●	
Alaska Mental Health Trust Reserve (AY2L)	0.00% ●	0.11% ●	0.24% ●	0.40% ●	0.30% ●	0.18% ●	0.17% ●	0.33% ●
ASLC Investment Fund (AY3S)	-0.03% ▲	0.22% ●	0.51% ●	0.39% ●				
Constitutional Budget Reserve Fund (AY19)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.15% ●	0.12% ●	0.20% ●	0.16% ●
Education Endowment Fund (AY3G)	0.01% ●	0.12% ●	0.19% ●	0.26% ●	0.06% ●			
EVOS Habitat Investment (AY2H)	0.02% ●	0.11% ●	0.62% ●	0.85% ●	0.34% ●	0.17% ●	0.17% ●	0.32% ●
EVOS Research Investment (AY02)	0.02% ●	0.11% ●	0.44% ●	0.58% ●	0.27% ●	0.13% ●	0.10% ●	0.28% ●
GeFONSI I (AY01)	0.06% ●	0.12% ●	0.18% ●	0.18% ●	0.10% ●	0.12% ●	0.17% ●	0.15% ●
GeFONSI II (AY3F)	0.05% ●	0.11% ●	0.00% ●	-0.01% ▲	0.00% ▲			
Illinois Creek Mine Reclamation (AY9J)	0.01% ●	0.12% ●	0.19% ●	0.26% ●	0.06% ●	0.02% ●	0.01% ▲	0.11% ●
International Airports 2006 Non-AMT (AY9X)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	0.20% ●	0.20% ●
International Airports Repair & Replacement Fund (AY05)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	0.20% ●	0.20% ●
International Airports Revenue Fund (AY04)	0.06% ●	0.11% ●	0.16% ●	0.14% ●	0.11% ●	0.11% ●	0.20% ●	0.17% ●
International Airports Series 2002 Reserve Account (AY2E)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	0.20% ●	0.20% ●
International Airports Series 2003 Reserve (AY2U)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	0.20% ●	0.20% ●
Investment Loss Trust Fund (AY28)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	0.20% ●	0.20% ●
PCE Endowment Fund (AY13)	0.01% ●	0.12% ●	0.19% ●	0.24% ●	0.01% ●	0.00% ●	0.02% ▲	0.14% ●
Permanent Fund Dividend Holding Account (AY2G)	0.07% ●	0.11% ●	0.13% ●	0.08% ●	0.08% ●	0.15% ●	0.28% ●	0.24% ●
Public School Trust Fund (AY08)	0.00% ●	0.11% ●	0.18% ●	0.26% ●	0.07% ●	0.02% ●	0.03% ▲	0.09% ●
RHIF LTC Insurance (AY11)	0.00% ▲	0.13% ●	0.27% ●	0.32% ●	0.14% ●	0.07% ●	0.11% ●	0.16% ●
RHIF Major Medical (AY03)	0.07% ●	0.11% ●	0.19% ●	0.14% ●	0.10% ●	0.13% ●	0.20% ●	0.20% ●

DOR Commissioner's Report: External Management Fees as of Month Ending 12/31/2022

Plan Fees for the Last Year

Plan	Fee as a %
2008 Transportation Project Government Bonds (AY2Q)	0.0000%
2013B Tax Exempt Education (AY3Z)	0.0000%
2016A - 2012 Transportation Bond Act (AY3Y)	0.0000%
2016B - 2012 Transportation Bond Act (AY3Q)	0.0000%
Alaska Higher Education Investment (AY3L)	0.0140%
Alaska Mental Health Trust Reserve (AY2L)	0.0113%
ASLC Investment Fund (AY3S)	0.0174%
Constitutional Budget Reserve Fund (AY19)	0.0000%
Education Endowment Fund (AY3G)	0.0139%
EVOS Habitat Investment (AY2H)	0.0121%
EVOS Research Investment (AY02)	0.0100%
GeFONSI I (AY01)	0.0013%
GeFONSI II (AY3F)	0.0029%
Illinois Creek Mine Reclamation (AY9J)	0.0140%
International Airports 2006 Non-AMT (AY9X)	0.0000%
International Airports Repair & Replacement Fund (AY05)	0.0000%
International Airports Revenue Fund (AY04)	0.0014%
International Airports Series 2002 Reserve Account (AY2E)	0.0000%
International Airports Series 2003 Reserve (AY2U)	0.0000%
Investment Loss Trust Fund (AY28)	0.0000%
PCE Endowment Fund (AY13)	0.0146%
Permanent Fund Dividend Holding Account (AY2G)	0.0000%
Public School Trust Fund (AY08)	0.0140%
RHIF LTC Insurance (AY11)	0.0155%
RHIF Major Medical (AY03)	0.0000%

**Plans with a market value under \$100,000 are excluded from this report. Information on these plans is available upon request.*

Commissioner's Report: Top GeFONSI Accounts for Month Ending: 12/31/2022

Program	Account Name	End Balance
GeFONSI I	General Fund	\$1,787,129,914.87
	Alaska Clean Water Fund	\$137,169,095.27
	Alaska Drinking Water Fund	\$77,289,974.29
	Fish & Game Fund	\$50,392,532.73
	Public Advocacy Trust	\$46,094,518.83
GeFONSI II	Statutory Budget Reserve Fund	\$449,207,373.74
	Public Education Fund	\$158,152,300.38
	Regional Ed Attendance Area School Fund	\$133,500,454.88
	Disaster Relief Fund	\$104,926,894.14
	Highway Equipment Working Capital Fund For Operating Appropriations	\$97,675,409.72
Sum of 5 Largest GeFONSI I and II Funds		\$3,041,538,468.85

Non-Routine Investments

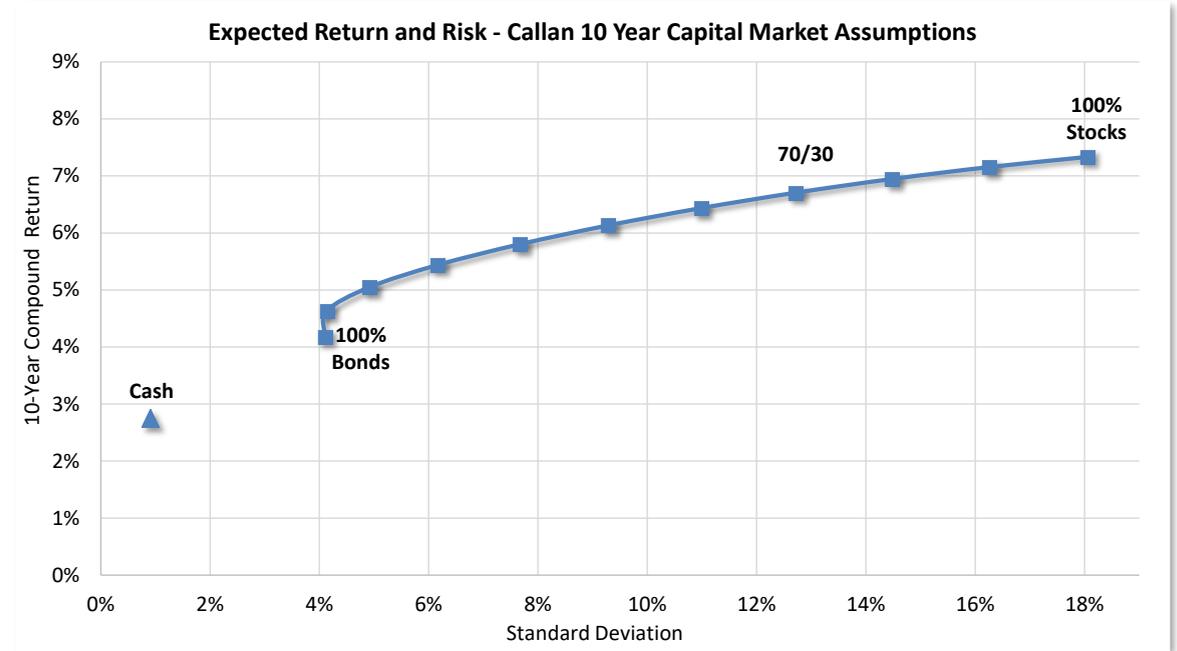
Non-Routine Investments

- The Department of Revenue is presented periodically with non-routine investment opportunities that fall outside the scope of its existing investment opportunity set.
- The state does not currently have any non-routine investments, and none are presently contemplated by investment staff.
- Non-routine investment process summary:
 - Document the investment opportunity and determine if it merits further diligence and/or if it is more suitable for other funding sources.
 - Seek legal advice on DOR eligibility.
 - Seek guidance from external auditors.
 - Use an impartial external expert to evaluate the opportunity and to provide an opinion on the investment.
 - Seek advice from the Investment Advisory Council.
 - Notify the Office of Management and Budget.
 - Complete diligence and investment documentation.
 - Inform the Chairs of the Senate and House Finance Committees of any decision to move forward with an investment.

Investment Policy and Asset Allocation Process

State Investment Policy and Asset Allocation Process

- The Commissioner of Revenue is the fiduciary for over \$8 billion in state assets across 100+ accounts pooled into 24 funds with similar assets or mandates.
- Setting investment policies and asset allocations are key fiduciary duties for these funds.
- Treasury staff reviews and makes recommendations on the investment policy and asset allocation of each fund at least annually.
- Each investment program is designed to balance fund investment objectives, risk tolerance, and other attributes:
 - Time horizon
 - Nominal or real return objectives
 - Cashflows, liquidity, and income needs
 - Capacity for loss or volatility over short, medium, and longer time horizons
- Performance, investment policy, and asset allocations are discussed quarterly in a transparent process with an independent investment advisory committee.

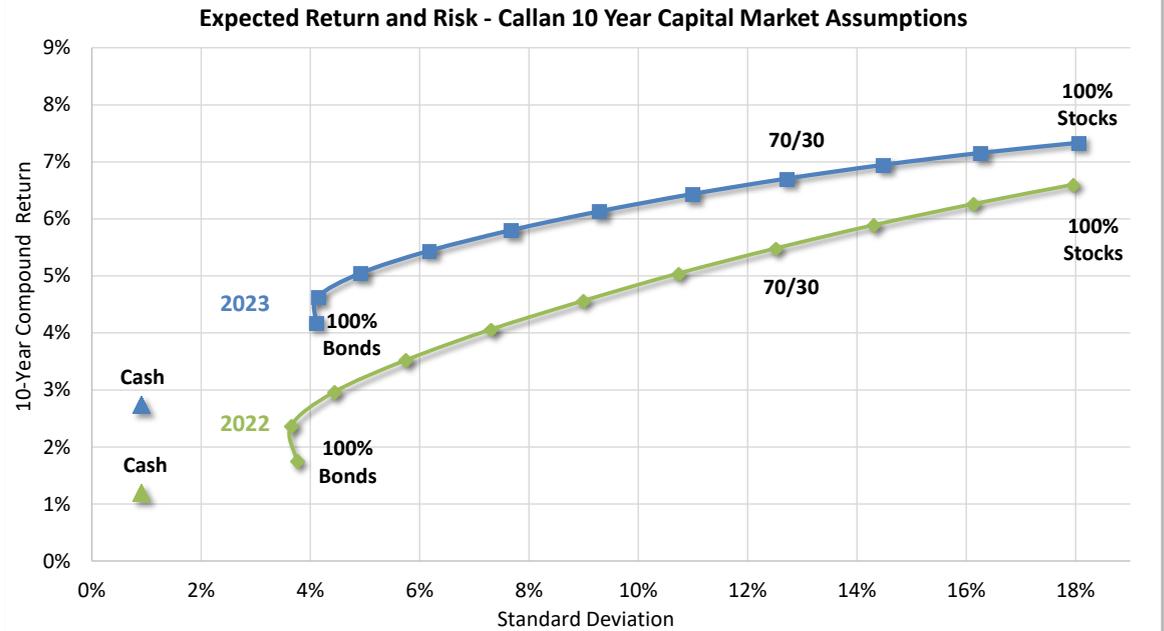
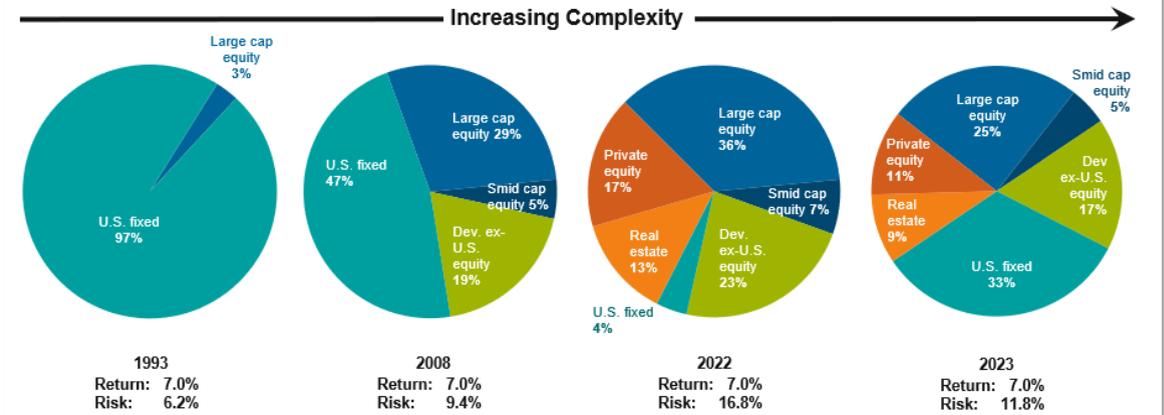


Fund - Account	Assets (12/31/22)	Risk Tolerance
Short-Term Funds	\$194,011,556	Low
CBRF - AY19	\$1,065,484,526	Low
GeFONSI - AY01	\$2,406,833,530	Moderate
International Airport - AY04	\$187,603,887	Moderate
GeFONSI II - AY3F	\$1,679,890,840	Moderate-High
Retiree LTC - AY11	\$690,978,275	5% Return Tgt
PCE Endowment - AY13	\$957,801,445	High/Endowment
Public School Trust Fund - AY08	\$700,344,157	High/Endowment
AK Higher Education - AY3L	\$347,149,154	High/Endowment
Illinois Creek Mine - AY9J	\$1,254,891	High/Endowment
Education Endowment - AY3G	\$936,165	High/Endowment
Total	\$8,232,288,426	

Asset Allocation

- Callan is an investment consultant that annually develops 10-year capital market assumptions for clients including the Alaska Retirement Management Board and the Alaska Permanent Fund Corporation. DOR uses these assumptions for independence and consistency.
- Return expectations have generally fallen over the past 30 years as interest rates, growth, and inflation expectations declined. Forward return expectations have now increased due to inflation, higher starting interest rates and the pullback in equity markets.
- Treasury staff evaluates Callan's capital market assumptions and current market conditions to develop an asset allocation approach for each state fund.
- The goal is to maximize return or minimize risk consistent with investment objectives and risk tolerance using a combination of Modern Portfolio Theory and account specific constraints and characteristics.

7% Expected Returns Over Past 30 Years - Callan



2023 Capital Market Assumptions

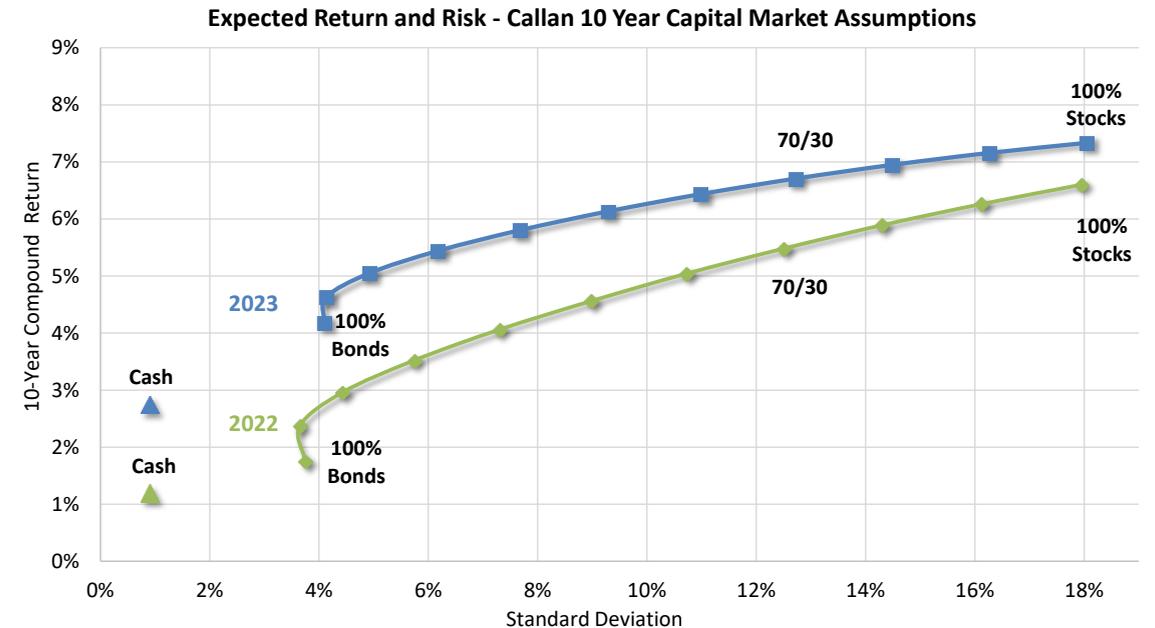
- In January, Callan released their 10-year capital market assumptions for 2023. Forward return expectations increased due to higher starting interest rates and the pullback in equity markets.
- Staff selects a subset of these asset classes for use in state funds based on risk, return, diversification, complexity, and cost.
- DOR is currently using Broad U.S. Equities, International Equities, Government 1-3 Fixed Income, Broad U.S. Fixed Income, U.S. REITs, and Cash Equivalents for state funds.
- For some portfolios, staff also invests up to 25% of the fixed income allocation in a tactical bond portfolio that opportunistically invests in high yield, TIPS, and other fixed income asset classes in a risk-managed fashion.
- Only liquid registered investments are used since State funds were not allowed to purchase unregistered investments, including alternative investments, prior to 2021 due to the SEC's definition of accredited investor – a definition that did not apply to the retirement funds and APFC.
- Even with the SEC change, illiquid investments are still problematic for State funds subject to annual legislative changes.

Asset Classes	10-Year Geometric Return	Return Change	Standard Deviation	Correlation to Domestic Equity	Real Return
Broad U.S. Equity	7.35%	0.75%	18.05%	1.00	4.85%
<i>Large Cap U.S. Equity</i>	7.25%	0.75%	17.75%	1.00	4.75%
<i>Small/Mid Cap U.S. Equity</i>	7.45%	0.75%	22.15%	0.92	4.95%
International Equity	7.45%	0.65%	21.25%	0.80	4.95%
<i>Developed ex-U.S. Equity</i>	7.25%	0.75%	20.15%	0.75	4.75%
<i>Emerging Market Equity</i>	7.45%	0.55%	25.70%	0.82	4.95%
Cash Equivalents	2.75%	1.55%	0.90%	-0.06	0.25%
Government 1-3 year Bonds	3.80%	2.30%	2.30%	0.04	1.30%
Core U.S. Fixed Income	4.25%	2.50%	4.10%	0.02	1.75%
<i>TIPS</i>	4.00%	2.75%	5.30%	-0.07	1.50%
<i>Emerging Market Sovereign Debt</i>	5.85%	2.25%	10.65%	0.66	3.35%
<i>High Yield</i>	6.25%	2.35%	11.75%	0.76	3.75%
Core Real Estate	5.75%	0.00%	14.20%	0.44	3.25%
REITs	6.90%	0.70%	20.90%	0.79	4.40%
Private Equity	8.50%	0.50%	27.60%	0.80	6.00%
Hedge Funds	5.55%	1.45%	8.45%	0.68	3.05%
Inflation	2.50%	0.25%			
70/30 Portfolio	6.71%	1.23%			

Risk Tolerance Assessment

General Risk Tolerance Assessment	Time Horizon	Probability of Loss (1yr)	Magnitude of Potential Loss	Discussion
Low	Short - Less than 1 year	< 1%	< 0.4%	Unwilling to risk material short-term volatility because of the immediate need for the invested funds. Minimizing exposure of principal to loss is very important.
Moderate	Short to Intermediate - 1 to 2 years	< 5%	< 1.5%	Willing to assume an average amount of market risk and volatility to achieve higher returns.
Moderate-High	Intermediate - 2 to 6 years	< 10%	< 5%	Willing to assume an above average amount of risk, volatility and loss of principal to achieve higher returns.
High - 5% Return Target	Long - Greater than 6 years	> 10%	< 20%	Willing to tolerate an amount of risk, volatility and loss of principal to achieve stated return target over long time periods.
High - Endowment	Long - Greater than 6 years	> 10%	< 20%	Willing to assume a material amount of risk, volatility and loss of principal to take advantage or higher return opportunities.

Fund - Account	Assets (12/31/22)	Risk Tolerance
Short-Term Funds	\$194,011,556	Low
CBRF - AY19	\$1,065,484,526	Low
GeFONSI - AY01	\$2,406,833,530	Moderate
International Airport - AY04	\$187,603,887	Moderate
GeFONSI II - AY3F	\$1,679,890,840	Moderate-High
Retiree LTC - AY11	\$690,978,275	5% Return Tgt
PCE Endowment - AY13	\$957,801,445	High/Endowment
Public School Trust Fund - AY08	\$700,344,157	High/Endowment
AK Higher Education - AY3L	\$347,149,154	High/Endowment
Illinois Creek Mine - AY9J	\$1,254,891	High/Endowment
Education Endowment - AY3G	\$936,165	High/Endowment
Total	\$8,232,288,426	



Initial Asset Allocations

from High to Low Risk

Using December 31, 2022, Assets

High Risk Tolerance Funds

High Risk/Endowment Profile Funds

AY08: FY2023 Public School Trust Fund Investment Policy

The Public School Trust Fund is a fund dedicated to the benefit of Alaska's public schools. The central objective is to provide "increasing returns from capital appreciation and net income over long-term periods to the fund's current beneficiaries." The fund may be invested "on the basis of probable total rate of return to promote the long-term generation of capital appreciate and income."

On July 1 of each year, the commissioner shall determine the monthly average market value of the fund for the previous five fiscal years preceding the previous fiscal year. The legislature may appropriate not more than five percent of the amount determined by the commissioner. Pending signature by the governor, the appropriated amount may be expended the following fiscal year.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	High exposure of principal to loss in return for higher expected Longer-term returns. Limited current income requirement. Limited inflation protection needed. Moderate liquidity requirement.	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>39% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>25% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>5% ± 5%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>30% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	39% ± 5%	International Equity	25% ± 5%	25% ± 5%	U.S. REITs	5% ± 3%	5% ± 5%	Core U.S. Fixed Income	30% ± 5%	30% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	39% ± 5%																		
International Equity	25% ± 5%	25% ± 5%																		
U.S. REITs	5% ± 3%	5% ± 5%																		
Core U.S. Fixed Income	30% ± 5%	30% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.62%																		
Risk - Standard Deviation	12.41%	12.50%																		
Probability of Loss - 1 Year	32.6%	32.9%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	16.4%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney
Approved

June 28, 2022
Date

High Risk History	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected LT Return	5.62%	6.37%	6.58%	6.20%	6.21%	6.55%	6.73%	6.73%	6.25%	6.25%
Expected Volatility	12.50%	12.60%	12.50%	12.70%	12.70%	12.95%	13.23%	13.23%	11.80%	10.55%
10% cVaR	-16.40%	-15.74%	-15.36%	-16.09%	-16.08%	-16.18%	-16.49%	-16.49%	-14.46%	-12.27%

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity	39%	39%
Global ex-U.S. Equity	25%	25%
US REITS	5%	5%
Short Duration Gov't/Credit		
Core U.S. Fixed Income	30%	30%
Cash Equivalents	1%	1%
Total	100%	100%
Optimization Results:		
Expected Return - Long-Term	5.60%	6.83%
Risk - Standard Deviation	12.41%	12.65%
Sharpe Ratio	0.35	0.32

Risk Statistics:

10% Probable Downside Return - 1 Year	-16.2%	-15.4%
5% Probable Downside Return - 1 Year	-20.0%	-19.3%
5% Probable Downside Return - 3 Year		-8.2%
5% Probable Downside Return - 5 Year		-4.8%
Probability of Loss - 1 Year	32.6%	29.5%
Prob. Return < -1%	29.7%	26.8%
Prob. Return < -2%	27.0%	24.3%
Prob. Return < -3%	24.4%	21.9%
Prob. Return < -4%	22.0%	19.6%
Prob. Return < -5%	19.6%	17.5%
Prob. Return < -10%	10.4%	9.2%
Prob. Return < -20%	2.0%	1.7%
Probability of Loss - 10 Year	7.7%	4.4%
Asset Time Horizon Estimate	5.9	5.9

Dollars: (\$Millions)

Assets	2,007.5
Expected Annual Earnings	137.1
1-Year 10% Probable Return (10% cVaR)	(308.6)
1-Year 5% Probable Return (5% cVaR)	(386.8)
3-Year 5% Probable Return (5% cVaR)	(165.4)
5-Year 5% Probable Return (5% cVaR)	(97.2)

High Risk/Endowment Profile Funds - Continued

AY13: FY2023 PCE Endowment Investment Policy

AS 42.45.080 as amended, directs the commissioner to apply the prudent-investor rule and invest the assets of the fund considering preservation of the purchasing power of the fund over time while maximizing the expected total return from both income and appreciation.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	Returns require relatively high exposure to principal loss in return for higher expected longer-term returns. Limited current income requirement. Long-term inflation protection expectation.	Changed																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	Intermediate																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>32% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>20% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>4% ± 3%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>43% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	32% ± 5%	International Equity	25% ± 5%	20% ± 5%	U.S. REITs	5% ± 3%	4% ± 3%	Core U.S. Fixed Income	30% ± 5%	43% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	32% ± 5%																		
International Equity	25% ± 5%	20% ± 5%																		
U.S. REITs	5% ± 3%	4% ± 3%																		
Core U.S. Fixed Income	30% ± 5%	43% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.00%																		
Risk - Standard Deviation	12.41%	10.12%																		
Probability of Loss - 1 Year	32.6%	31.6%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	12.9%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

AY31: FY2023 Alaska Higher Education Investment Policy

The Alaska Higher Education Investment Fund was established to make grants and scholarship payments to qualified postsecondary institutions for students. The Legislature may appropriate up to seven percent of the fund's prior June 30 market value balance each year.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	High exposure of principal to loss in return for higher expected Longer-term returns. Limited current income requirement. Limited inflation protection needed. Moderate liquidity requirement.	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>39% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>25% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>5% ± 5%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>30% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	39% ± 5%	International Equity	25% ± 5%	25% ± 5%	U.S. REITs	5% ± 3%	5% ± 5%	Core U.S. Fixed Income	30% ± 5%	30% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	39% ± 5%																		
International Equity	25% ± 5%	25% ± 5%																		
U.S. REITs	5% ± 3%	5% ± 5%																		
Core U.S. Fixed Income	30% ± 5%	30% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.62%																		
Risk - Standard Deviation	12.41%	12.50%																		
Probability of Loss - 1 Year	32.6%	32.9%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	16.4%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

High Risk/Endowment Profile Funds - Continued

AY9J: FY2023 Illinois Creek Mine Reclamation Investment Policy

The Illinois Creek Gold Mine is a remote gold mine located on state land approximately 51 miles south of Galena, Alaska. Construction of the gold mine began in June, 1996. The companies responsible for the mine dissolved, the financier abandoned its ownership rights, and the State of Alaska inherited operating responsibility for the mine in July 1999. Following reclamation of the mine by American Reclamation Group, the State now assumes responsibility to monitor the site and to fix unexpected post-reclamation problems. To fund the post-closure monitoring and any potential maintenance, this trust fund was created. The Department of Revenue will manage the fund and Department of Natural Resources will withdraw funds for monitoring and reclamation obligations.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	Maximize return while still being able to fund uncertain maintenance expenditures (amount and size)	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>39% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>25% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>5% ± 5%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>30% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	39% ± 5%	International Equity	25% ± 5%	25% ± 5%	U.S. REITs	5% ± 3%	5% ± 5%	Core U.S. Fixed Income	30% ± 5%	30% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	39% ± 5%																		
International Equity	25% ± 5%	25% ± 5%																		
U.S. REITs	5% ± 3%	5% ± 5%																		
Core U.S. Fixed Income	30% ± 5%	30% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.62%																		
Risk - Standard Deviation	12.41%	12.50%																		
Probability of Loss - 1 Year	32.6%	32.9%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	16.4%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

AY3G: FY2023 Education Endowment Investment Policy

AS 43.23.063(b)(2) directs the commissioner to invest in a manner likely to achieve at least a four percent nominal return over a five-year period.

On July 1 of each year, the "commissioner shall determine the fund balance for the previously closed fiscal year, including the earnings of the fund" and "when the average market value for the fiscal year exceeds \$1,000,000,000, transfer 4.5% of the average fiscal-year-end market value of the balance of the fund for the last five fiscal years, including the fiscal year just ended, and including any unrealized gains and losses."

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	High exposure of principal to loss in return for higher expected Longer-term returns. Limited current income requirement. Limited inflation protection needed. Moderate liquidity requirement.	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>39% ± 5%</td> <td>39% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>25% ± 5%</td> <td>25% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>5% ± 5%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>30% ± 5%</td> <td>30% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 7% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	39% ± 5%	39% ± 5%	International Equity	25% ± 5%	25% ± 5%	U.S. REITs	5% ± 3%	5% ± 5%	Core U.S. Fixed Income	30% ± 5%	30% ± 5%	<i>*may include up to 7% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	39% ± 5%	39% ± 5%																		
International Equity	25% ± 5%	25% ± 5%																		
U.S. REITs	5% ± 3%	5% ± 5%																		
Core U.S. Fixed Income	30% ± 5%	30% ± 5%																		
<i>*may include up to 7% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.60%	5.62%																		
Risk - Standard Deviation	12.41%	12.50%																		
Probability of Loss - 1 Year	32.6%	32.9%																		
10% Probability of Annual Loss (10% cVaR)	16.2%	16.4%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

Retiree LTC Insurance - \$691 Million

AY11: FY2023 Retiree LTC Insurance Investment Policy

Effective July 1, 1997, the Department of Administration established the Group Health and Life Insurance Fund and the Retiree Health Insurance Fund. The Retiree Health Insurance Fund is further broken down into three plans: 1) medical, 2) dental, vision and audio, and 3) long term care.

The Retiree Long-Term Care Plan consists of premiums paid for retiree long term care. While many retirees are paying premiums into the plan today, at present only a small percentage of the premiums are needed for claims payments. Per the analysis, Actuarial Valuation of the State of Alaska Long-Term Care Program as of June 2021, conducted by Lewis & Ellis, Inc., the actuarial assumed net investment earnings assumption is 5.25%.

Investment Topic	Proposed Policy	Current Policy																		
Investment Objective	To match the fund's assumed actuarial rate of return while minimizing risk	No Change																		
Risk Tolerance	High	No Change																		
Policy Risk/Loss Range	>10%	No Change																		
Time Horizon	Long	No Change																		
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>35% ± 5%</td> <td>33% ± 5%</td> </tr> <tr> <td>International Equity</td> <td>22% ± 5%</td> <td>21% ± 5%</td> </tr> <tr> <td>U.S. REITs</td> <td>5% ± 3%</td> <td>4% ± 3%</td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td>37% ± 5%</td> <td>41% ± 5%</td> </tr> <tr> <td colspan="3"><i>*may include up to 9% in tactical fixed income</i></td> </tr> <tr> <td>Cash Equivalents</td> <td>1% - 1%/+2%</td> <td>1% - 1%/+2%</td> </tr> </table>	Broad U.S. Equity	35% ± 5%	33% ± 5%	International Equity	22% ± 5%	21% ± 5%	U.S. REITs	5% ± 3%	4% ± 3%	Core U.S. Fixed Income	37% ± 5%	41% ± 5%	<i>*may include up to 9% in tactical fixed income</i>			Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%	
Broad U.S. Equity	35% ± 5%	33% ± 5%																		
International Equity	22% ± 5%	21% ± 5%																		
U.S. REITs	5% ± 3%	4% ± 3%																		
Core U.S. Fixed Income	37% ± 5%	41% ± 5%																		
<i>*may include up to 9% in tactical fixed income</i>																				
Cash Equivalents	1% - 1%/+2%	1% - 1%/+2%																		
Expected Return - Long-Term	5.27%	5.10%																		
Risk - Standard Deviation	11.14%	10.25%																		
Probability of Loss - 1 Year	31.8%	31.6%																		
10% Probability of Annual Loss (10% cVaR)	14.3%	13.1%																		

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity	35%	35%
Global ex-U.S. Equity	22%	22%
US REITS	5%	5%
Short Duration Gov't/Credit		
Core U.S. Fixed Income	37%	37%
Cash Equivalents	1%	1%
Total	100%	100%
Optimization Results:		
Expected Return - Long-Term	5.27%	6.63%
Risk - Standard Deviation	11.14%	11.41%
Sharpe Ratio	0.37	0.34

Risk Statistics:

10% Probable Downside Return - 1 Year	-14.3%	-13.4%
5% Probable Downside Return - 1 Year	-17.7%	-16.9%
5% Probable Downside Return - 3 Year		-7.0%
5% Probable Downside Return - 5 Year		-3.9%
Probability of Loss - 1 Year	31.8%	28.1%
Prob. Return < -1%	28.7%	25.2%
Prob. Return < -2%	25.7%	22.5%
Prob. Return < -3%	22.9%	19.9%
Prob. Return < -4%	20.3%	17.6%
Prob. Return < -5%	17.8%	15.4%
Prob. Return < -10%	8.5%	7.3%
Prob. Return < -20%	1.2%	1.0%
Probability of Loss - 10 Year	6.7%	3.3%
Asset Time Horizon Estimate	5.9	5.9

Dollars: (\$Millions)

Assets	691.0
Expected Annual Earnings	45.8
1-Year 10% Probable Return (10% cVaR)	(92.6)
1-Year 5% Probable Return (5% cVaR)	(116.8)
3-Year 5% Probable Return (5% cVaR)	(48.1)
5-Year 5% Probable Return (5% cVaR)	(26.9)

Moderate Risk Tolerance Funds

GeFONSI - \$2.4 Billion

AY01: FY2023 GeFONSI Investment Policy

The General Fund constitutes the largest element of the General Fund and Other Non-Segregated Investments (GeFONSI) fund. Much of the money in the fund has been appropriated and a material loss could affect the state's ability to fulfill its obligations. Treasury expects much of the money in the pool to be spent in less than one year. Accordingly, the allocation should allow minimal exposure to principal loss. Equities are not recommended for the GeFONSI.

Investment Topic	Proposed Policy	Current Policy
Investment Objective	Minimal exposure to principal loss. Maximize current income within moderate risk tolerance. Minimal inflation protection needed. High liquidity requirement.	No Change
Risk Tolerance	Moderate	No Change
Policy Risk/Loss Range	1 - 5%	No Change
Time Horizon	Short to Intermediate	No Change
Asset Allocation	Broad U.S. Equity International Equity Short Duration Govt/Credit 15% ±10% Core U.S. Fixed Income 15% ±10% Cash Equivalents 85% ±10%	15% ±10% 85% ±10%
Expected Return - Short-Term	2.51%	0.27% (short-term)
Risk - Standard Deviation	0.90%	0.57%
Probability of Loss - 1 Year	0.3%	32.0%
5% Probability of Annual Return (5% cVaR)	0.7%	

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

GeFONSI History	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected ST Return	0.27%	0.44%	1.91%	2.38%	2.38%	2.36%	2.30%	2.30%	2.14%	2.87%
Expected Volatility	0.57%	1.16%	0.93%	1.08%	1.08%	1.08%	1.08%	1.08%	1.28%	1.33%
10% cVaR	-0.70%	-1.60%	0.28%	0.48%	0.48%	0.46%	0.40%	0.40%	-0.11%	0.54%

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity		
Global ex-U.S. Equity		
US REITS		
Short Duration Gov't/Credit	15%	15%
Core U.S. Fixed Income		
Cash Equivalents	85%	85%
Total	100%	100%
Optimization Results:		
Expected Return - Short-Term	2.51%	4.61%
Risk - Standard Deviation	0.90%	0.93%
Sharpe Ratio	0.14	(0.07)

Risk Statistics:

10% Probable Downside Return - 1 Year	0.9%	3.0%
5% Probable Downside Return - 1 Year	0.7%	2.7%
5% Probable Downside Return - 3 Year		3.5%
5% Probable Downside Return - 5 Year		3.8%
Probability of Loss - 1 Year	0.3%	0.0%
Prob. Return < -1%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%
Asset Time Horizon Estimate	0.5	0.5

Dollars: (\$Millions)

Assets	2,406.8
Expected Annual Earnings	110.9
1-Year 10% Probable Return (10% cVaR)	71.7
1-Year 5% Probable Return (5% cVaR)	64.9

International Airport Revenue Fund - \$188 Million

AY04: FY2023 International Airport Revenue Fund Investment Policy

The Revenue Fund maintains a significant balance and the investment earnings on that balance are a revenue source for the airport system. Airport management and airline representatives want to keep fees as stable and low as practical. Relatively stable investment earnings assist the airport system and the airlines in meeting that goal.

Beginning October 2000, the Revenue Fund contained receipts from passenger facility charges collected at the Anchorage and Fairbanks International Airports. All the airport systems' revenue and expenses flow through the Revenue Fund. This includes normal operating transactions and most repair and maintenance projects. This subjects the Revenue Fund to the possibility of relatively significant cash inflows and outflows.

Investment Topic	Proposed Policy	Current Policy
Investment Objective	Minimal exposure to principal loss. Maximize current income within moderate risk tolerance. Minimal inflation protection needed. High liquidity requirement.	No Change
Risk Tolerance	Moderate	No Change
Policy Risk/Loss Range	1 - 5%	No Change
Time Horizon	Short to Intermediate	No Change
Asset Allocation	Broad U.S. Equity International Equity Short Duration Govt/Credit 15% ±10% Core U.S. Fixed Income 15% ±10% Cash Equivalents 85% ±10% 85% ±10%	15% ±10% 85% ±10%
Expected Return - Short-Term	2.51%	0.27% (short-term)
Risk - Standard Deviation	0.90%	0.57%
Probability of Loss - 1 Year	0.3%	32.0%
5% Probability of Annual Return (5% cVaR)	0.7%	

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity		
Global ex-U.S. Equity		
US REITS		
Short Duration Gov't/Credit	15%	15%
Core U.S. Fixed Income		
Cash Equivalents	85%	85%
Total	100%	100%
Optimization Results:		
Expected Return - Short-Term	2.51%	4.61%
Risk - Standard Deviation	0.90%	0.93%
Sharpe Ratio	0.14	(0.07)

Risk Statistics:

10% Probable Downside Return - 1 Year	0.9%	3.0%
5% Probable Downside Return - 1 Year	0.7%	2.7%
5% Probable Downside Return - 3 Year		3.5%
5% Probable Downside Return - 5 Year		3.8%
Probability of Loss - 1 Year	0.3%	0.0%
Prob. Return < -1%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%
Asset Time Horizon Estimate	0.5	0.5

Dollars: (\$Millions)

Assets	187.6
Expected Annual Earnings	8.6
1-Year 10% Probable Return (10% cVaR)	5.6
1-Year 5% Probable Return (5% cVaR)	5.1

GeFONSI II - \$1.7 Billion

AY3F: FY2023 GeFONSI II Investment Policy

GeFONSI II is comprised of funds that do not benefit from positive investment returns, nor bear the risk of loss in the event of negative returns. The General Fund benefits, or is harmed, by these returns. GeFONSI II is invested more aggressively than is the GeFONSI. The premise for the higher risk posture is that over the course of several years the General Fund will generate more total return, despite having a higher risk of loss in any given year.

Investment Topic	Proposed Policy	Current Policy																									
Investment Objective	Tolerate moderate exposure to principal loss to target modestly higher returns.	No Change																									
Risk Tolerance	Moderate-High	No Change																									
Policy Risk/Loss Range	5 - 10%	No Change																									
Time Horizon	Intermediate	No Change																									
Asset Allocation	<table border="0"> <tr> <td>Broad U.S. Equity</td> <td>4%</td> <td>- 4%/+5%</td> <td>4%</td> <td>- 4%/+5%</td> </tr> <tr> <td>International Equity</td> <td>2%</td> <td>- 2%/+5%</td> <td>2%</td> <td>- 2%/+5%</td> </tr> <tr> <td>Short Duration Gov't/Credit</td> <td>33%</td> <td>±10%</td> <td></td> <td></td> </tr> <tr> <td>Core U.S. Fixed Income</td> <td></td> <td></td> <td>26%</td> <td>±10%</td> </tr> <tr> <td>Cash Equivalents</td> <td>61%</td> <td>±10%</td> <td>68%</td> <td>±10%</td> </tr> </table>	Broad U.S. Equity	4%	- 4%/+5%	4%	- 4%/+5%	International Equity	2%	- 2%/+5%	2%	- 2%/+5%	Short Duration Gov't/Credit	33%	±10%			Core U.S. Fixed Income			26%	±10%	Cash Equivalents	61%	±10%	68%	±10%	
Broad U.S. Equity	4%	- 4%/+5%	4%	- 4%/+5%																							
International Equity	2%	- 2%/+5%	2%	- 2%/+5%																							
Short Duration Gov't/Credit	33%	±10%																									
Core U.S. Fixed Income			26%	±10%																							
Cash Equivalents	61%	±10%	68%	±10%																							
Expected Return - Short-Term	3.01%	0.91% (short-term)																									
Risk - Standard Deviation	1.39%	1.37%																									
Probability of Loss - 1 Year	1.5%	25.3%																									
5% Probability of Annual Return (5% cVaR)	0.2%	1.9%																									

The proposed policy is effective July 1, 2022:

Lucinda Mahoney
Approved

June 28, 2022
Date

GeFONSI II History	2022	2021	2020	2019	2018
Expected ST Return	0.91%	0.94%	2.37%	3.38%	3.38%
Expected Volatility	1.37%	1.47%	1.61%	2.63%	2.58%
10% cVaR	-1.50%	-1.64%	-0.46%	-1.24%	-1.15%

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity	4%	4%
Global ex-U.S. Equity	2%	2%
US REITS		
Short Duration Gov't/Credit	33%	33%
Core U.S. Fixed Income		
Cash Equivalents	61%	61%
Total	100%	100%
Optimization Results:		
Expected Return - Short-Term	3.01%	4.79%
Risk - Standard Deviation	1.39%	1.51%
Sharpe Ratio	0.45	0.08

Risk Statistics:

10% Probable Downside Return - 1 Year	0.6%	2.1%
5% Probable Downside Return - 1 Year	0.2%	1.7%
5% Probable Downside Return - 3 Year		3.0%
5% Probable Downside Return - 5 Year		3.4%
Probability of Loss - 1 Year	1.5%	0.1%
Prob. Return < -1%	0.2%	0.0%
Prob. Return < -2%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%
Asset Time Horizon Estimate	1.2	1.2

Dollars: (\$Millions)

Assets	1,680.0
Expected Annual Earnings	80.5
1-Year 10% Probable Return (10% cVaR)	36.0
1-Year 5% Probable Return (5% cVaR)	28.2

Low Risk Tolerance Funds

Short Term Funds - \$194 Million

FY2023 Short-Term Funds Investment Policy

The Department manages several funds that have high liquidity requirements necessitating investment entirely in short-term fixed income. The following funds are covered by this policy:

AY03 - Retiree Health Insurance Fund	AY3B - International Airports 2010-B
AY05 - International Airport Repair and Replacement Fund	AY3V - 2010-C GO Bonds
AY28 - Investment Loss Trust Fund	AY3Y - 2013-C GO Bonds
AY2E - 2002 Series Reserve Account	AY3Z - 2013-B GO Bonds
AY2G - Permanent Fund Dividend Holding Account	AY9X - 2006B Non-AMT Construction Fund
AY2Q - 2008 Transportation Project GO Bonds	AY9Y - 2006 Series Variable Rate
AY2U - 2003 Series Reserve Account	AY3Q - FY 2017 2016B - 2012 Transportation Bond
AY3A - International Airports 2010-A	

Investment Topic	Proposed Policy	Current Policy
Investment Objective	Very low exposure to principal loss. Modest current income requirement. Little inflation protection needed. High liquidity requirement.	No Change
Risk Tolerance	Low	No Change
Policy Risk/Loss Range	<1%	No Change
Time Horizon	Short	No Change
Asset Allocation	Broad U.S. Equity International Equity Short Duration Govt/Credit Core U.S. Fixed Income Cash Equivalents 100%	100%
Expected Return - Short-Term	2.39%	0.05% (short-term)
Risk - Standard Deviation	0.90%	
Probability of Loss - 1 Year	0.4%	
5% Probability of Annual Return (5% cVaR)	0.5%	

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

Cash History	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
Expected ST Return	0.05%	0.17%	1.93%	2.25%	2.25%	2.25%	2.25%	2.25%	2.00%	2.75%
Expected Volatility	0.05%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%	0.90%
10% cVaR	0.00%	-1.41%	0.35%	0.67%	0.67%	0.67%	0.67%	0.67%	0.42%	1.17%

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity		
Global ex-U.S. Equity		
US REITS		
Short Duration Gov't/Credit		
Core U.S. Fixed Income		
Cash Equivalents	100%	100%
Total	100%	100%
Optimization Results:		
Expected Return - Short-Term	2.39%	4.67%
Risk - Standard Deviation	0.90%	0.90%
Sharpe Ratio	(0.00)	(0.00)

Risk Statistics:

10% Probable Downside Return - 1 Year	0.8%	3.1%
5% Probable Downside Return - 1 Year	0.5%	2.8%
5% Probable Downside Return - 3 Year		3.6%
5% Probable Downside Return - 5 Year		3.8%
Probability of Loss - 1 Year	0.4%	0.0%
Prob. Return < -1%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%
Asset Time Horizon Estimate	0.3	0.3

Dollars: (\$Millions)

Assets	194.0
Expected Annual Earnings	9.1
1-Year 10% Probable Return (10% cVaR)	6.0
1-Year 5% Probable Return (5% cVaR)	5.5

CBRF – \$1.1 Billion

AY19: FY2023 CBRF Investment Policy

The investment policies for the Constitutional Budget Reserve Fund (CBRF) have changed over the years as the balance and the expected uses of the CBRF have changed. Declining production of Alaska North Slope crude oil and the inconsistency of future prices are still a concern. The CBRF is the state's "savings account" and as such is responsible for covering fluctuations in the general fund.

Financial planning by the administration and the legislature is highly dependent upon the CBRF balance maintaining stability and high liquidity. Given the short-term expected requirement for these funds, a cash equivalent investment program is warranted.

Investment Topic	Proposed Policy	Current Policy
Investment Objective	Very low exposure to principal loss. Little inflation protection needed. High liquidity requirement.	No Change
Risk Tolerance	Low	No Change
Policy Risk/Loss Range	<1%	No Change
Time Horizon	Short	No Change
Asset Allocation	Broad U.S. Equity International Equity Short Duration Govt/Credit Core U.S. Fixed Income Cash Equivalents 100%	100%
Expected Return - Short-Term	2.39%	0.05% (short-term)
Risk - Standard Deviation	0.90%	0.05%
Probability of Loss - 1 Year	0.4%	15.9%
5% Probability of Annual Return (5% cVaR)	0.5%	

The proposed policy is effective July 1, 2022:

Lucinda Mahoney

Approved

June 28, 2022

Date

State of Alaska Asset Allocation

Asset Classes	FY23	FY24
Broad U.S. Equity		
Global ex-U.S. Equity		
US REITS		
Short Duration Gov't/Credit		
Core U.S. Fixed Income		
Cash Equivalents	100%	100%
Total	100%	100%
Optimization Results:		
Expected Return - Short-Term	2.39%	4.67%
Risk - Standard Deviation	0.90%	0.90%
Sharpe Ratio	(0.00)	(0.00)

Risk Statistics:

10% Probable Downside Return - 1 Year	0.8%	3.1%
5% Probable Downside Return - 1 Year	0.5%	2.8%
5% Probable Downside Return - 3 Year		3.6%
5% Probable Downside Return - 5 Year		3.8%
Probability of Loss - 1 Year	0.4%	0.0%
Prob. Return < -1%	0.0%	0.0%
Probability of Loss - 10 Year	0.0%	0.0%
Asset Time Horizon Estimate	0.3	0.3

Dollars: (\$Millions)

Assets	1,065.5
Expected Annual Earnings	49.7
1-Year 10% Probable Return (10% cVaR)	32.9
1-Year 5% Probable Return (5% cVaR)	29.9
3-Year 5% Probable Return (5% cVaR)	38.3

Questions?

State of Alaska
Department of Revenue

2023 State Investment Review Meeting Schedule

February 17, 2023 @ 10:00 AM (Videoconference)

1. December 31, 2022 Performance
2. FY2023 Capital Market Assumptions

May 10, 2023 @ 10:00 AM (Videoconference)

1. March 31, 2023 Performance
2. FY2024 Asset Allocation Discussion – Asset Allocation Process & 2023 Capital Market Assumptions

August 23, 2023 @ 10:00 AM (Videoconference)

1. June 30, 2023 Performance
2. FY2024 Asset Allocation Discussion

November 8, 2023 @ 10:00 AM (Videoconference)

1. September 30, 2023 Performance

Potential Discussion Topics:

- Endowment-Oriented Accounts, Asset Allocation, and Spending Policy
- Positioning for inflation
- What are reasonable investment objectives?